

Cyperaceae (praeter Caricinas) Chilenses.

Auctore

C. B. Clarke.

In ENGLER Bot. Jahrb. v. 27 (1899) p. 485—563, there is a paper by GEORG KUEKENTHAL on the *Carex* (including *Uncinia*) of Chile and Argentina; Argentina only adds 4 species to the *Carex* of Chile.

About 8 months ago, Dr. J. PHILIPPI wrote to me requesting me to publish a similar paper on the remainder of the *Cyperaceae* of Chile. He wished a revision of all the Chile *Cyperaceae* to be published before Dr. REICHE describes that Order in the new Flora of Chile.

The present paper is what I have been able to produce in reply to Dr. J. PHILIPPI. It is not quite similar to the paper of Pastor KUEKENTHAL. It does not include the Argentine *Cyperaceae* which are numerous; I possess neither the collections nor the paper of Dr. KURTZ, so that I could not deal at all completely with the Argentine species.

Dr. REICHE has sent me authentic specimens, sometimes only fragmentary, of nearly all the new species *lately* described by Dr. PHILIPPI. The present paper is compiled by extracting, from my mss on *Cyperaceae*, the Chile species; then verifying and correcting these by comparison with Dr. PHILIPPI's types.

As regards some species formerly described by Dr. PHILIPPI, I have neither the descriptions nor any specimens. Also, as regard several new species of which I have received only fragments, I prefer to treat these as forms of old species rather than to describe very critical species on slender material.

The area here included in Chile is that in the Atlas to C. GAY's Chile: which does not exactly define the present political boundary. Several of the localities cited below I can find in no map; they are merely copied from the field-ticket, the writing of which I may not have always deciphered correctly.

The literature of the subject is mainly the *Cyperaceae* by DESVAUX (in CLAUDE GAY, Historia de Chile, Botanica v. 6 Paris 1853), supplemented by the numerous papers of Dr. PHILIPPI in Linnaea and in the Anales de

la Universidad de Chile, scattered over 40 years. For the record of the species therein treated of, I rely on F. PHILIPPI (Catalogus Plantarum Vascularum Chilensium, Santiago 1884). The Anales are distributed only, not published, so that it is difficult to find a complete series of them; nor have I been able to see even the descriptions of some species of *Cyperaceae* cited therefrom.

Among other works cited below are:

1. MOLINA, History of Chili (Translation), London 1809. This contains one *Scirpus*, described so that no one has been able to discover what it was.
2. PRESL (*Reliquiae Haenkeanae*, Prag 1830) records half-a-dozen species from Chile, or perhaps from Chile. The series of PRESL's types is imperfect in herb. Kew; when the type is not here, I can only say of a species like *Cyperus laetus*, Presl, from Chile, that I have never seen a *Cyperus* that shews the characteristic features of PRESL's diagnosis.
3. J. D. HOOKER, Flora Antarctica pars 2 (1847) p. 360, describes 6 species of *Cyperaceae* (besides *Carex*) from the extreme South of Chile.
4. STEUDEL, Synopsis Plantarum Cyperacearum (Stuttgart 1855), describes a few new Chile *Cyperaceae*, from LECHLER's collections. A larger list of LECHLER's Cyperaceous numbers with names by STEUDEL, but without descriptions is given in LECHLER, Berberides Americae Australis (Stuttgart 1857): two Maclovian species are given on p. 50, twelve Chile sp. on p. 53; exclusive of *Carex* and *Uncinia*.
5. HENSLEY, Voyage of Challenger, Vol. 4 (London 1885), records 5 species of *Cyperaceae* (besides *Cariceae*) in Juan Fernandez.
6. FRANCHET, Mission Scientifique du Cap Horn, v. 5 Botanique (Paris 1889) p. 373 records 5 species of *Cyperaceae* (other than *Carex*) from the South of Chile.
7. JONOW, Flora de Juan Fernandez (Santiago 1896) p. 142, 143, records 6 species of *Cyperaceae* (besides *Cariceae*).

I have, of course, cited the eminent Monographers of *Cyperaceae*, KUNTH and BOECKELER, in all cases. I have picked up also some of the new Chile species which BOECKELER has scattered in various publications; I can hardly hope to have discovered all.

I have frequently cited BENTHAM's Flora Australia, GRISEBACH's Symbolae Argentinae, etc. with the object of shewing the distribution of a species in the Southern Zone or neighbouring countries.

Cyperaceae Chilenses.

A. Flores nucigeri 2-sexuales.

Tribus I. **Cypereae**. — Spiculae glumae 2—1—0 imae vacuae.— Inflorescentia umbellata aut capitata (praeter *Fuirenam*).

Spiculae saepius multi-nucigerae.

Glumae nucigerae distichae. Subtribus 1. **Eu-Cypereae**.

Glumae nucigerae (saltem superiores) spiraliter sitae

Subtribus 2. **Scirpeae**.Tribus II. **Schoeneae**. — Spiculae glumae 3 (rarius 2) imae vacuae. — Inflorescentia longe paniculata vel subcapitata (non umbellata). Spiculae saepe pauci-nucigerae.Stylus 2-fidus. Subtribus 3. **Rynchosporae**.Stylus 3-fidus. Subtribus 4. **Eu-Schoeneae**.

B. Flores nucigeri 4-sexuales.

Spiculae pauciflorae. Flos imus foemineus; superiores masculi aut steriles, aut fere. Subtribus 3. **Sclerieae**.

Subtribus 1. **Eu-Cypereae**. Spicula 4 (saepius plures) flores perfectos nucigeros (speciebus non Chilensibus exceptis) maturans. Glumae in basi spiculae 2—0 vacuae. Glumae nucigerae distichae; summae masculae aut steriles, plus minus quaquaversales. Setae hypogynae 0. Nux apice in stylum sensim abiens (stylo basi ipsa non bulbosim incrassata) fere in omnibus (in omnibus sp. Chilensibus) levis neque transversim lineolata neque longitudinaliter costata.

Folia omnia prope ad basin culmi enodosi approximata. Panicula in umbellam depressa, interdum in caput densum congesta.

Stylus 2-fidus (spiculae rhachilla persistens).

Nux a latere compressa, biconvexa 1. *Pycneus*.Nux a dorso compressa, plano-convexa subtrigona. 2. *Juncellus*.

Stylus 3-fidus.

Spiculae rhachilla persistens. 3. *Cyperus*.

Spiculae rhachilla supra 2 glumas vacuas a pulvillo caduca.

Spiculae rhachilla in fructu continua 4. *Mariscus*.Spiculae rhachilla in nodos 4-nucigeros soluta. 5. *Torulinium*.

Subtribus 2. **Scirpeae**. — Spicula 4 (vel plures) flores perfectos nucigeros maturans. Glumae in basi spiculae 2—0 vacuae. Glumae nucigerae (saltem superiores) undique quaquaversim imbricatae (2 imis interdum suboppositis i. e. spicula basi ipsa subdisticha). Setae hypogynae non raro obviae.

Folia omnia prope ad basin culmi enodosi (praeter *Fuirenam*) approximata. Panicula (praeter *Fuirenam*) in umbellam depressa, saepe in caput congesta.

Styli basis a nuce ope constrictionis vel lineae distincta 6. *Elcocharis*.Styli basis in nucis apicem sensim continua (cf. etiam *Eleocharidem simulantem*).Gabrae. Inflorescentia capitata vel umbellata. 7. *Scirpus*.Pilosa. Inflorescentia longe paniculata 8. *Fuirena*.

- Subtribus 3. **Rynchosporae**. — Stylus 2-fidus. 9. *Dichromena*.
 Subtribus 4. **Eu-Schoeneae**. — Stylus 3-fidus. — Spiculae paucinucigerae.
 Flores in spicula axillares; glumae summae tabescentes.
 Setae 6, evolutae.
 Rhachilla supra florem imum brevis 40. *Carpa*.
 Rhachilla supra florem imum elongata incurva 41. *Schoenus*.
 Setae 0 aut vix ullae. 42. *Cladium*.
 Spicula 4-flora; flos pseudo-terminalis 43. *Oreobolus*.
 Subtribus 5. **Sclerieae**. — Spiculae flos imus foemineus, superiores masculi steriles aut obsoleti 44. *Scleria*.

4. **Pycreus**.

Pycreus, Beauv. Fl. d'Owar v. 2 (1807) p. 48 t. 86 fig. 2; C. B. Clarke in Hook. f. Fl. Brit. Ind. v. 6 p. 589.

Cyperi, Sect. A *Pycreus*, Kunth Enum. v. 2 p. 3; Benth. et Hook. f. Gen. Pl. v. 3 p. 1044.

Cyperi, Sect. A *Eu-Pycreus*, Boeck. in Linnaea v. 35 (1867—8) p. 437.

Glumae distichae. Spicula 4 (saepius plures) flores perfectos nucigeros gerens; rhachilla persistens. Glumae nucigerae a basi spiculae sensim caducae. Setae hypogynae 0. Stylus 2-fidus. Nux lateraliter compressa.

— Glabrae. Folia omnia prope ad basin culmi enodosi approximata. Panicula in umbellam, non raro in caput densum depressa. Nux in spp. Chilensibus levis.

Species 60—70, per regiones Orbis Terrarum calidiores — in zonâ Australi usque ad caput Bonae Spei, Australiam et Buenos Ayres — sparsae.

Spiculae pallidae, ferrugineae, aut proventu brunescentes.

Spiculae pallidae, in spicis globosis dense fasciculatae.

Culmi admodum graciles.

Culmus tenuior. Inflorescentia saepius umbellata . . . 4. *P. helvus*.

Culmus filiformis, monocephalus 2. *P. nematodes*.

Spiculae ferrugineae aut rubro-tinctae. Culmus medioeris 3. *P. Fernandezianus*.

Spiculae castaneae aut castaneo-pictae.

Spiculae in spicis subglobosis dense fasciculatae.

Spiculae aut compressae, planae, rigidae 4. *P. melanostachyus*.

Spiculae parum compressae, subturgidae 5. *P. elegantulus*.

Spiculae in spicis laxiuscule spicatae 6. *P. Lagunetto*.

1. *P. helvus* C. B. Clarke in Urban Symb. Antill. v. 2 (1900) p. 16, 19.

Cyperus densus Link Jahrb. v. 3 (1820) p. 83; Humboldt ms. fide Link.

C. helvus Liebm.! Mexican Halvgr. (1850) p. 9.

C. ambiguus Liebm.! Mexican Halvgr. p. 11, non Steud.

C. correctus Steud.! Cyp. (1855) p. 7.

C. variegatus Griseb.! Fl. Brit. West-Ind. p. 562, non H.B.K.

C. Humboldtianus Schultes in Roem. et Sch. Syst. v. 2 Mant. p. 100; Boeck.! in Linnaea v. 35 (1867—8) p. 444, et in Engl. Bot. Jahrb. v. 4 (1881) p. 362.

C. filiculmis A. Rich.! in Sagra Fl. Cuba v. 3 (1853) p. 285.

C. Olfersianus C. B. Clarke in Journ. Linn. Soc. v. 21 (1884) p. 62. partim; Boeck. in Engl. Bot. Jahrb. v. 4 (1881) p. 362, non Kunth.

C. Olfersianus γ *elatior* Boeck.! in Linnaea v. 35 (1867—8) p. 440.

C. Jacquemontii Boeck.! in Linnaea v. 35 (1867—8) p. 442.

C. Jaeggii Boeck.! Cyp. Novae Heft 4 (1888) p. 2.

C. lepidus Philippi! in Anal. Univ. Chile v. 93 (1896) p. 347.

C. melanostachyus var. *pallida* Schlechtendal ms. fide Boeck.

Glabra., Rhizoma horizontale gracile, e nodis pluribus approximatis saepe radicans. Culmi 3 dm longi, graciles. Folia 2—3 dm longa, anguste linearia. Umbella 4—8 cm lata, simplex; radii 5—3—4; bracteae 3, ima 5—12 cm longa, anguste linearis, culmum quasi continuens. Spiculae 5—15 in unoquoque capite globoso fasciculatae, 5—15 mm longae, 8—12-nucigerae, compressae, pallidae proventu fusco-brunee. Spiculae rhachilla persistens, glumae arcte imbricatae ellipticae deciduae. Stamina 3—2 raro 4. Stylus 2-fidus. Nux lateraliter compressa, oblongo-obovoidea, levis.

Chile: Curico (PHILIPPI).

Distrib. In America Centrali et West Indies, frequens. In Brasil Australi et Monte Video, rara.

2. *P. nematodes* C. B. Clarke n. sp.

P. megapotamicus Nees! in Mart. Brasil v. 2 pars 4 p. 6 partim.

Cyperus megapotamicus Boeck.! in Linnaea v. 35 (1867—8) p. 453 partim; C. B. Clarke in Journ. Linn. Soc. v. 21 (1884) p. 68 partim; Maury! in Mem. Soc. Genev. v. 31 (1890) p. 125.

C. nematodes Chamisso! ms. in herb. Berol.

Glabra. Culmi caespitosi, 4—6 dm longi, gracillimi. Folia 5—25 cm longa, anguste linearia. Caput 1, globosum, densum, 12—18 mm in diam.; bracteae 3—2, ima 8—18 cm longa, filiformis. Spiculae fasciculatae, 4 cm longae, lineares, compressae, 18-nucigerae, flavidae. Spiculae rhachilla persistens, glumae arcte imbricatae naviculares deciduae. Stamina 3—2 raro 4. Stylus 2-fides. Nux lateraliter compressa oblongo-obovoidea, apice fere conica, levis, brunea.

Chile: R. Diguillin (Prov. Nuble), (PHILIPPI).

Distrib. Brasil. Australis (Chamisso n. 206); Minas Geraes, Paraguay et Uruguay.

3. *P. Fernandezianus* C. B. Clarke.

Cyperus Fernandezianus Colla in Mem. Torino v. 39 (1836) p. 24,

22 t. 56; Desv. in C. Gay Chile v. 6 p. 163; Steud. Cyp. p. 8; F. Philippi Cat. Pl. Chil. p. 306.

C. reflexus Hemsl. Challenger Voy. pars 3 p. 58 partim; Johow Fl. Juan Fernandez (1896) p. 142.

Culmus foliis duplo longior, erectus. Folia basalia, numerosa, $\frac{1}{2}$ lin. lata. Umbella pauci-radiata, spicis subglobosis polystachyis; bracteae 2—4 ima umbellam superans. Spicae diam. $\frac{1}{2}$ poll., omnes basi involucello 5—6-phylo instructae. Spiculae 40—50 arcissime glomeratae, compressiusculae, 15—20-florae. Glumae ovato-lanceolatae, margine scarioso-pallentes, reliqua parte rufescentes, ita ut spiculae variegatae adpareant. Stigma tenuissime 2-fidum. Nux minutissima ovato-compressiuscula glabra.

Juan Fernandez: Bertero (fide COLLA).

Non vidi. Certe non *C. reflexus* Vahl, cujus stylus semper 3-fidus. Forsan fuerat *C. polystachyus* Beauv., species per oras Americae Australis late vulgata. Involucellum a Colla descriptum in nulla specie Cyperi videri potest. DESVEAUX l. c. notavit (recte), Por la figura de Colla se ve que algo tiene de la traza del *C. vegetus*.

4. *C. grammicus* C. B. Clarke.

Cyperus grammicus Kunth! Enum. v. 2 (1837) p. 6; Steud. Cyp. p. 329; Desv.! in C. Gay Chile v. 6 p. 162 t. 70 fig. 4; Boeck.! in Linnaea v. 35 (1867—8) p. 449; F. Phil. Cat. Pl. Chil. p. 306; C. B. Clarke in Journ. Linn. Soc. v. 21 (1884) p. 64; Kunze ms. fide Kunth.

C. gramineus Steud. Cyp. p. 5 (error typogr.).

C. parvulus Steud.! Cyp. p. 4, in Lechler Berb. Amer. Austral. p. 53.

Glabra breviter repens. Culmi 2—8 cm longi, crassiusculi. Folia plura, 10—15 cm longa, 3—4 mm lata. Umbella in 1 caput laxiusculum 5—15-stachyum, 2—3 cm in diam., congesta; bracteae 3—4, usque ad 12 cm longae 3—4 mm latae, compressae 10—16-nucigerae. Spiculae rhachilla persistens; glumae pallidae leviter bruno-pictae laxe (proventu vix) imbricatae, deciduae. Stamina 2—3. Stylus 2-fidus. Nux lateraliter compressa, obovoidea, levis, nigra.

Chile. (CHAMISSE n. 210), Valdivia (BRIDGES n. 838, LECHLER n. 36, 456, J. BALL, PHILIPPI n. 5), Osorno (LECHLER n. 364), Antuco (POEPPIG n. 48), Temblavira (REED).

Distrib. In Chile endemica.

5. *P. melanostachyus* C. B. Clarke.

Cyperus melanostachyus H.B.K. Nov. Gen et Sp. v. 4 (1845) p. 207; Kunth Enum. v. 2 p. 10 pl. Domingensi excl.; Nees! in Linnaea v. 49 (1847) p. 698; Schlecht. in Bot. Zeit. v. 7 (1849) p. 54—56 pro magna parte; Liebm.! Mexic. Halygr. p. 12—14; Boeck.! in Linnaea v. 35 (1867—8) p. 455; C. B. Clarke in Journ. Linn. Soc. v. 21 (1884) p. 67; Maury in Journ. de Bot. v. 2 (Paris 1888) p. 390.

C. adustus Presl. Rel. Haenk. v. 4 p. 167; Kunth Enum. v. 2 p. 10; Nees et Schauer in Linnaea v. 49 (1847) p. 698; Desv. in C. Gay Chile v. 6 p. 170; Philippi Cat. Pl. Chil. p. 307.

C. longicurvis Boeck.! in Linnaea v. 38 (1874) p. 358.

C. Lorentzianus Boeck.! in Linnaea v. 38 (1874) p. 357.

C. pergracilis Boeck.! Cyp. Novae Heft 2 (1890) p. 4.

C. diandrus Torrey! in Bot. U. S. et Mexic. Bound. p. 226.

C. diandrus var. *capitata* Britton! in Bull. Torrey Club v. 13 (1886) p. 235, et in Proc. Amer. Acad. v. 24 (1886) p. 442.

C. intricato-ramosus Boeck.! in Allg. Bot. Zeitschr. v. 4 (1895) p. 186.

Glabra. Culmi 4—7 dm longi, basi oblique repentes e nodis radicales. Folia 4—4 dm longa, 2—4 mm lata. Spicae 1—3, in 1 caput 12—20-stachyum dense congestae; bracteae 3—2, ima usque ad 6—15 cm longa, foliiformis. Spiculae 12 mm longae, 2½ mm latae, sat compressae, duriusculae. Spiculae rhachilla persistens; glumae deciduae, vix acutae, castaneo-brunneo-pictae, in dorso castaneae aut pallidae marginibus anguste vel vix albo-scariosae. Stamina 2—3. Stylus 2-fidus. Nux lateraliter compressa, ellipsoidea, levis.

Chile vel Peru? (fide PRESL).

Distrib. In omni America calidiore vulgaris, a California usque ad Bolivia et Pampas; exempli gratia: Bolivia; alt. 3000 m (MANDON n. 1400), Argentina, Mendoza (PHILIPPI), Catamarca (SCHICKENDANTZ n. 48), Belen (SCHICKENDANTZ n. 4), Cordoba (HIERONYMUS n. 123, LORENTZ n. 31, 36), Sierras Pampeanas (LORENTZ n. 155, 239, 243).

Exemplum in Chile lectum nondum vidi.

Huic speciei admodum affinis est *Cyperus variegatus* H.B.K. Nov. Gen. et Spec. v. 4 p. 208 (inflorescentia laxiore aut breviter simpliciter umbellata); etiam in Argentina frequens.

6. *P. elegantulus* C. B. Clarke in Dur. et Schinz Fl. Afr. v. 5 (1895) p. 536 cum syn.

Cyperus elegantulus Steud.! in Flora v. 25 (1842) p. 583.

C. cimicinus Presl! Rel. Haenk. v. 4 p. 166; Boeck.! in Linnaea v. 35 (1867—8) p. 454; C. B. Clarke in Journ. Linn. Soc. v. 21 (1884) p. 67.

C. biradiatus Boeck.! ms. in Ule n. 1604.

Spicae in unicum caput congestae vel rarius brevissime umbellatae. Spiculae vix 2 mm latae, parum compressae subturgidae. Glumae admodum obtusae. Nux levis; neque (ut PRESL scripserat) rugoso-tuberculata. Ceteroquin ut *P. melanostachyus*.

Chile vel Peru? (fide PRESL).

Distrib. In Africa calidiore vulgaris. In America tropica frequens; Lima (DOWBEY n. 44). Brasil Australis, S. Catharina (ULE n. 1604).

Exemplum in Chile lectum nondum vidi.

7. **P. Lagunetto** C. B. Clarke.

Cyperus Lagunetto Steud! Cyp. (1855) p. 5; C. B. Clarke in Journ. Linn. Soc. v. 21 (1884) p. 64.

C. Argentinus C. B. Clarke in Journ. Linn. Soc. v. 21 (1884).

C. diandrus Griseb.! Symb. Fol. Argent. p. 340 et Pl. Lorentz p. 246.

C. megapotamicus Griseb.! Symb. Fl. Argent. p. 340 et Pl. Lorentz p. 246.

C. pauper Philippi in Anal. Univ. Chil. (1873) p. 553, v. 93 (1896) p. 347? J. Philippi Cat. Pl. Chil. p. 307.

Glabra. Culmi 4—3 dm longi mediocres, rhizoma (interdum) 5—6 cm longum tenue. Folia linearia, 2—4 mm lata, plana. Inflorescentia 4—5 cm in diam., saepissime umbellata; radii pauci, breves; bracteae 2—3, ima saepe 5—8 cm longa, foliiformis. Spiculae 3—10 in unoquoque radio, laxe distanter spicatae, 12—25 mm longae, 8—32-florae. Spiculae rhachilla persistens; glumae ovatae, modice compressae, imbricatae, in lateribus castaneae, vel rarius fere elutae stramineae castaneo-pictae. Stylus 2-fidus. Nux lateraliter compressa, subovoidea, levis.

Chile: prov. Mendoza (legit LEYBOLDT fide PHILIPPI).

Distrib. In Argentina frequens; Tucuman (LORENTZ et HIERONYMUS n. 1025, 1026, 1075), Salta (LORENTZ et HIERONYMUS n. 342), Cordoba (HIERONYMUS n. 445, 738) etc. Etiam in Bolivia, Neo-Grenada.

Cyperus pauper PHILIPPI, a me non visus erat. PHILIPPI descriptio paullo divergit: »Humilis, culmis fere filiformibus«. — Lago Capi, in prov. Mendoza. *P. Lagunetto* in Chile probabiliter incola est; etiamsi *Cyperus pauper* Philippi specie diversa fuisset. — *C. Argentinus* C. B. Clarke erat *Pycereus Lagunetto*, colore castaneo multum eluto.

2. **Juncellus**.

Juncellus C. B. Clarke in Hook. f. Fl. Brit. Ind. v. 6 (1893) p. 594.

Cyperi, Subgenus 2, Kunth Enum. v. 4 p. 47.

Cyperi, Subg. *Juncellus* Griseb.! Fl. Brit. West Ind. p. 562; Benth. Fl. Austral. v. 7 p. 262 partim i. e. sp. stylo 3-fido exclusis.

Pycerei sp., Reich. Fl. Germ. Excurs. p. 72.

Cyperi Sect. *Pseudo-pycereus* Boeck.! in Linnaea v. 35 (1867—8) p. 485 partim i. e. sp. stylo 3-fido exclusis.

Stylus 2-fidus; ceteroquin omnino ut *Cyperus*.

Genus artificiale; in *Cyperum* undique transiens, a *Pycreo* spiculae structura longe diversa. Nux plano-convexa a dorso (i. e. facie antica) compressa, stigmatum duorum plano transversa neque spiculae rhachillam continente.

Species 13, late (per *Cyperi* aream fere totam) sparsae.

1. **J. laevigatus** C. B. Clarke in Hook. f. Fl. Brit. Ind. v. 6 (1893) p. 596.

Cyperus laevigatus Linn.! Mant. (1771) p. 479; Rottb. Descr. et Ic. p. 19 t. 16 fig. 4; Boeck. in Linnaea v. 35 (1867—8) p. 468; C. B. Clarke in Journ. Linn. Soc. v. 20 (1883) p. 282 et v. 21 (1884) p. 77 t. 3 fig. 20, 21 et t. 4 fig. 33; Britton in Bull. Torrey Club v. 13 (1886) p. 206.

C. mucronatus Rottb. Descr. et Ic. (1773) p. 19 t. 8 fig. 4; Kunth Enum. v. 2 p. 17; Griseb. Veget. Karaih. p. 448, Symb. Fl. Argent. p. 310, Fl. Brit. West Ind. p. 562; Desv. in C. Gay Chile v. 6 p. 163; F. Philippi Cat. Pl. Chil. p. 307; Philippi Atacama p. 53.

C. rivularis Steud.! in Lechler Berb. Amer. Austr. p. 56, non Kunth.

C. ambiguus Steud.! Cyp. p. 16.

C. viridulus Boeck.! in Linnaea v. 35 (1887—8) p. 485.

Pycreus laevigatus Nees! in Linnaea v. 40 (1885—6) p. 130.

P. mucronatus Nees! in Linnaea v. 9 (1834) p. 283.

Glabra. Rhizoma repens, robustum, a squamis castaneis aut rubris intectum; modo in paludibus elongatum culmis distantibus, modo in siccioribus abbreviatum culmis approximatis. Culmi 4—6 dm longi, tenues aut crassiusculi, apice trigoni. Folia interdum cum culmo aequilonga 3 mm lata, saepius breviora, haud raro praeter vaginas subnulla. Inflorescentia capitiformis, lateralis, 4—30-stachya; bractea inferior 2—10 cm longa, culmum quasi continuens. Spiculae longae 4 cm latae 2 mm, rigidae saepe curvatae. Spiculae rhachilla subtetragona, exalata, persistens; glumae nucigerae perdense imbricatae, concavae vix naviculares ovatae, 7—11-nerviae, albidae castaneo-pictae aut castaneae, deciduae. Stamina 3; filamenta ligulata. Nux obovoidea, lenticularis, brunea, convexo-concava aut convexo-plana, facie altera (postica) ad rhachin adpressa.

Chile: la Serena (PHILIPPI n. 15).

Distrib. In calidioribus Europae, Africae, Asiae, Oceaniae, Americae late copiose sparsa. In Argentina vulgata; in Bolivia et Peru.

Var. β *junciformis* C. B. Clarke in Hook. f. Fl. Brit. Ind. v. 6 p. 597 paullo diversa est »spiculis 4—6, lucide castaneis aut fere atris.« In Cordillera et in Argentina sat vulgaris; est *Cyperus reptans* Boeck. in Linnaea v. 35 (1867—8) p. 485.

3. *Cyperus*.

Cyperus Linn. Sp. Pl. ed. 1 p. 44, ed. 2 p. 66 (fere omnino); Kunth Enum. v. 2 p. 20—114 (Sect. Pycreo Juncello exceptis, sp. paucis ad Mariscum translatis); C. B. Clarke in Hook. f. Fl. Brit. Ind. v. 6 p. 597; F. Philippi Cat. Pl. Chil. p. 306, 397 (sp. pluribus ad Pycreum, Juncellum, Mariscum, translatis).

Glumae distichae. Spicula 4 (saepius plures) flores perfectos nucigeros gerens; rhachilla persistens. Glumae nucigerae a basi spiculae sensim caducae. Setae hypogynae 0. Stylus 3-fidus. Nux a dorso (i. e. facie antica) plus minus compressa.

— Folia omnia prope ad basin culmi enodosi approximata. Panicula in umbellam, non raro in caput densum, depressa. Nux levis.

Species 300 in Orbis Terrarum regionibus calidis numerosae vulgares, temperatis pauciores sparsae.

Stamen 4.

Glumae non aristatae.

Folia 3—5 mm lata. Spicae globosae, densae, ferrugineae 1. *C. reflexus*.

Folia 6—9 mm lata. Spicae minus densae, luteo-virides 2. *C. vegetus*.

Glumae aristatae. 3. *C. aristatus*.

Stamen 3, raro 2—4.

Stolones 0.

Culmus 3—15 cm longus. 4. *C. Volckmanni*.

Culmus 3—8 dm longus.

Umbella magna decomposita, spicis ∞ 5. *C. xanthostachyus*.

Umbella 2—3 cm in diam., tenuis 6. *C. leptophyes*.

Stolones tenues, apice saepe bulbiferi, evanidi 7. *C. esculentus*.

1. *C. reflexus* Vahl Enum. v. 2 (1806) p. 299; Kunth Enum. v. 2 p. 42; Nees in Mart. Brasil. v. 2 pars 1 p. 48; Steud. in Flora v. 25 (1842) p. 601; Griseb. Pl. Lorentz. p. 216; Boeck. in Linnaea v. 35 (1867—8) p. 558; Desv. in C. Gay Chile v. 6 p. 167; F. Phil. Cat. Pl. Chil. p. 307; C. B. Clarke in Journ. Linn. Soc. v. 24 (1884) p. 116; Hemsl. Bot. Challenger Voy. pars 3 p. 58; Maury in Mem. Soc. Genèv. v. 34 (1890) p. 127; Johow Fl. Juan Fernandez p. 142.

C. Sellowii Link Hort. Berol. v. 4 p. 307, v. 2 p. 348.

C. intricatus Schrader in Roem. et Sch. Syst. v. 2 Maut. p. 98; Nees! in Mart. Brasil. v. 2 pars 1 p. 47; Boeck. in Linnaea v. 35 (1867—8) p. 562.

C. fraternus Kunth Enum. v. 2 p. 42; Nees in Mart. Brasil. v. 2 pars 4 p. 19; Boeck. in Linnaea v. 35 (1867—8) p. 560; Griseb. Symb. Fl. Argent. p. 310; Maury in Mem. Soc. Genèv. v. 34 (1890) p. 127.

C. haematostachys Steud. Cyp. p. 44, in Lechler Berb. Amer. Austr. p. 53.

C. sparteus Schrader ms. fide Nees.

C. calcaratus Nees! ms.

Glabra. Rhizoma breve, ligneum. Culmi 4—6 dm longi, inter se 0—1 cm distantes. Folia cum $\frac{1}{2}$ — $\frac{3}{4}$ parte culmi aequilonga, 3—5 mm lata. Umbella specie simplex aut in caput unicum (8—40 mm in diam. condensata; radii saepius 3—4 breves; bractae 3—5, umbellam longe superantes. Spicae globosae, 15—20 mm in diam., dense 10—80-stachyae, saepe 2—3-nim fusae, maturae saepe rubro-brunee. Spiculae 10—15 mm longae, $2\frac{1}{2}$ —3 mm latae, compressae, 8—20-florae; rhachilla persistens, exalata. Glumae caducae, naviculares, imbricatae, 3-costatae. Stamen 4.

Styli rami 3, e gluma vix exserti. Nux cum $\frac{1}{2}$ parte glumae aequilonga, acutius trigona, oblongo-obovioidea aut oblonga, apice breviter acuminata, levis, nigrescens.

Chile: (herb. Philippi n. 3, 87), Valdivia (PHILIPPI, BRIDGES n. 845, LECHLER n. 283), Quintero (BERTERO n. 946), Constitucion (PHILIPPI n. 402), Rio Claro (PHILIPPI n. 444), Llico (PHILIPPI n. 40), Argol (O. KUNTZE n. 43 bis), Juan Fernandez (BERTERO, REED, SCOUTER, MOSELEY, PHILIPPI n. 4002). Masafuera, Germain.

Distrib. In America Australi extratropica vulgaris. In Brasil Australiore sparsa. Per Andes usque ad Mexico et Texas indigena.

2. *C. vegetus* Willd. Sp. Pl. v. 4 (1797) p. 283, Enum. Hort. Berol. p. 72; Presl Rel. Haenk. v. 4 p. 468; C. A. Meyer in S. Petersb. Mem. savants Etrang. v. 4 (1831) t. 3; Nees in Nova Acta Nat. Cur. v. 49 Suppl. 1 (1843) p. 58; Kunth Enum. v. 2 p. 40; Griseb. Pl. Lorentz. p. 247; Desv. in C. Gay Chile v. 6 p. 467; F. Phil. Cat. Pl. Chil. p. 307; Boeck! in Flora v. 42 (1859) p. 436 bis, in Linnaea v. 35 (1867—8) p. 550; C. B. Clarke in Journ. Linn. Soc. v. 24 (1884) p. 445; Hemsl. Bot. Challenger Voy. v. 4 pars 3 p. 58; J. Ball! in Journ. Linn. Soc. v. 24 (1884) p. 236; Johow Fl. Juan Fernandez p. 442.

C. compressus Jacq. Hort Vindob. v. 3 p. 40 t. 42, non Linn.

C. Eragrostis Lam. Ill. v. 4 p. 446; Poir. in Lam. Encycl. v. 7 p. 258 non Vahl.

C. elegans Roth in Uster Ann. v. 40 (1794) p. 34, non Linn.

C. monandrus Roth Catalecta v. 4 p. 3.

C. prionotropis Steud.! in Flora v. 25 (1842) p. 604.

C. ochrocephalus Steud.! in Flora v. 25 (1842) p. 604.

C. lutescens Philippi! in Anal. Univ. Chil. v. 31 (1896) p. 343, non Torrey et Hook.

Glabra robusta. Stolones $4\frac{1}{2}$ mm in diam. Culmi 4—8 dm longi. Folia cum $\frac{3}{4}$ parte culmi aequilonga, 6—9 mm lata. Umbella 4—26 cm in diam.; bractae 4—8, umbellam multo superantes, foliiformes, basi saepe inter se paullo distantes. Spiculae 40—50-nim subcomposite fasciculatae usque ad 46 mm longae 3—4 mm latae 20—40-florae, multum compressae (cf. autem Var. γ); rhachilla persistens, exalata. Glumae deciduae rigidiusculae laxiuscule imbricatae, carinatae, 3-costatae, virides aut stramineo-lutescentes (parce ferrugineo — aut bruno — tinctae), in dorso laxe cellulosae. Stamen 4. Styli rami 3, e gluma brevissime exserti. Nux cum $\frac{2}{5}$ parte glumae vix aequilonga, triquetra, angustius obovoidea, levis, nigro-brunea, apice acuminata apiculata.

Chile: herb. Cl. Gay (BRIDGES), Valparaiso, Macrae (PHILIPPI n. 89, 544, RUSBY n. 106), Corral (PHILIPPI), Llico (PHILIPPI n. 7).

Andes: alt. 4400 m, Cauquenes (BALL), Santiago (PHILIPPI), Valdivia (PHILIPPI n. 4234), Quillota (EDMONSTONE), Maldonado (CUNNINGHAM).

Juan Fernandez (BERTERO n. 1450, SCOULER, MOSELEY).

Distrib. In America Australi extratropica vulgaris. In Brasil Australi rara. Andes, per Boliviam usque ad Californiam sparsa. (In Europa Australi, Anglia, ab Acores usque ad Constantinople, in Neo-Zeelandia et Ins. Society efferata).

Var. β *compacta* Desv. in C. Gay Chile v. 6 p. 167; minus robusta, culmo apice triquetro subtriangulari; spiculis minoribus.

C. acutangulus Boeck.! in Linnaea v. 35 (1867—8) p. 551; F. Philippi Cat. Pl. Chil. p. 306.

Chile: herb. C. GAY.

Var. γ *limbata* panicula evoluta; spiculis paullo abbreviatis inflatis (nec compressis), membranaceis (nec rigidiusculis), minus acute carinatis.

C. limbatus Maury in Mem. Soc. Genève. v. 31 (1890) p. 129, t. 37.

C. bracteosus herb. Philippi, non Desvaux.

Juan Fernandez (REED, MOSELEY, PHILIPPI).

Maury hanc plantam ut 3-andrum depexit. Exempla a me visa 4-andra sunt. Forsan spiculae flores ini 3-andri, superiores 4-andri? Plantae huc adductae, an 3-andrae an 4-andrae sunt *C. regetus* Willd fide Hemsley.

3. *C. aristatus* Rottb. Descr. et Ic. (173) p. 23 t. 6 fig. 1; Kunth Enum. v. 2 p. 23 (syn. Burmann excl.); Boeck.! in Linnaea v. 35 (1867—8) p. 500; C. B. Clarke in Journ. Linn. Soc. v. 24 (1884) p. 94, et in Hook. f. Fl. Brit. Ind. v. 6 p. 606; F. Phil. Cat. Pl. Chil. p. 306; Britton! in Bull. Torrey Club v. 13 (1886) p. 207; Maury in Mem. Soc. Genève. v. 31 (1890) p. 126.

C. squarrosus Linn.! Amoen. Acad. v. 4 (1759) p. 303.

C. inflexus Mühl. Descr. Uber. p. 16; Kunth Enum. v. 2 p. 22; Torrey Fl. New York v. 2 p. 343; Desv. in C. Gay Chile v. 6 p. 164.

C. uncinatus R. Br. Prod. Fl. Austral. p. 215(?); Pursh Fl. Amer. Sept. v. 1 p. 50.

Scirpus intricatus Linn.! Mant. p. 182 et herb. propr.

Isolepis echinulata Kunth! Enum. v. 2 p. 205.

Dichostylis aristata Palla in Engl. Bot. Jahrb. v. 10 (1888) p. 296.

Glabra. Annuua. Culmi caespitosi, 2—48 cm longi, tenuiores. Folia cum culmo saepe aequilonga, 2 mm lata. Umbellae simplicis radii 1—6 (vel culmus monocephalus), 2—8 cm longi; bractae umbella saepe longiores, foliiformes. Spiculae in spica 3—40 dense spicatae, pallidae aut rubo-bruncae, 6—30-florae, longae 8—18 mm, latae 4—5-florae, multum compressae; rachilla persistens, subexalata. Glumae deciduae, ovato-lanceolatae, per totam fere latitudinem 7—8-striatae, in aristam conspicuam recurvatam abeuntes. Stamina 4. Stylus 3-fidus. Nux. trigona, oblonga aut anguste obovatoidea, cum $\frac{1}{3}$ parte glumae (arista inclusa) aequilonga.

Chile: Llico (PHILIPPI n. 4) Lacus Aculeo (BERTERO n. 243), Cordillera de Talca (J. BALL), Cordillera de Maule, Germain (O. KUNTZE n. 4 bis).

Distrib. Per Americam Australem sparsa nec communis. In calidioribus Orbis quam Veteris tam Novae (Borealis et Centralis) vulgaris.

4. *C. Volckmanni* Philippi! in Linnaea v. 33 (1864—5) p. 269; F. Philippi Cat. Pl. Chil. p. 307; Philippi in Anal. Univ. Chile (1861), fide Philippi, sed invenire nequivi.

C. araeus Philippi! in Anal. Univ. Chile v. 93 (1896) p. 346.

C. oreocharis C. B. Clarke ms. olim.

Glabra. Culmi annui caespitosi, 1—40 cm longi. Folia cum culmo saepe aequilonga, 2—3 mm lata, in margine incrassato remote spinulosa. Inflorescentia usque ad 3 cm in diam., composita, radiis 5 2—15 mm longis, spicis 4—4 in unoquoque radio sessilibus, aut minor vel ad spicam 1. 3-stachyam reducta; bracteae 3 inflorescentiam superantes, foliiformes. Spiculae 3—10 in unaquaque spica, spicatim dispositae sed fere congestae, 7 mm longae, 2—3 mm latae, compressae 6—10-nucigerae; rhachilla persistens exalata. Glumae deciduae ovato-oblongae, 7—9-nerviae, in dorso virides lutescentes in margine conspicue purpureo-rubrae. Stamina 3. Stylus nuce multo brevior, ramis 3 breviusculis. Nux cum $\frac{3}{5}$ parte glumae aequilonga, obovoidea, trigona, apice obtuse pyramidata, levis, bruneo-nigra.

Chile: Coquimbo (prope Illapel), Quebrado de San Lorenzo (REED [in herb. Kew], VOLCKMANN, PHILIPPI n. 12) — Sauzal, ex PHILIPPI.

Species *C. glabro*, Linn. affinis; teneritate differt.

5. *C. xanthostachyus* Steud.! in Flora v. 25 (1842) p. 600, Cyp. p. 26.

C. bracteosus Desv.! in C. Gay Chile v. 6 p. 465; F. Phil. Cat. Pl. Chil. p. 306; Kunze ms. fide Desv.

C. Lechleri Steud.! Cyp. p. 27, in Lechl. Berb. Amer. Austral. p. 53; Boeck. in Linnaea v. 35 (1867—8) p. 563; C. B. Clarke in Journ. Linn. Soc. v. 24 (1884) p. 117.

C. Cumingii Nees in Linnaea v. 9 (1834) p. 284; Steud. Cyp. p. 25.

C. longicaulis Boeck.! ms. in Ule n. 1602.

Scirpus leptopus Boeck.! in Flora v. 44 (1858) p. 414.

Glabra, robusta, saepe metralis. Folia 5—8 dm longa, 10—18 mm lata, spongiosa, in sicco transversim lineolata. Umbella magna, composita; bracteae 6—10, usque ad 3—5 dm longae, cum foliis consimiles. Spicae saepe 50—100, subsolitariae aut 2—4 fusae, saturate bruneae, aut aureo-bruneae; umbellularum radioli ut umbellae radii divaricati interdum conspicue deflexi. Spiculae 6 mm longae, 5 mm latae, c. 10-florae; rhachilla persistens, exalata. Glumae elliptico-oblongae, obtusae, marginibus in sicco multum involutis, vix carinatae. Stamina 3 vel 2. Styli rami 3. Nux cum $\frac{1}{2}$ parte glumae subaequilonga, oblonga aut subellipsoidea.

Chile: C. Gay (GILLIES), Valparaiso (CUMING n. 426), Valdivia (PHILIPPI n. 288), Rio Crucis (LECHLER n. 452), Talcahuana (POEPPIG n. 17, 634).

Distrib. In Brasil Australi, rara. In Neo-Grenada.

6. *C. leptophyes*.

C. laetus herb. Philippi n. 44, non Presl.

Culmus unicus visus (folia radices desunt), metralis, tenuissimus, apice triqueter levis. Inflorescentia 2 cm in diam.; spiculae 14 spicatae umbellatae in caput apertum approximatae; bracteae 3 patulae, ima 6 cm longa, 2 mm lata. Spiculae 45 mm longae, 3 mm latae, c. 45-nucigerae; rhacheola persistens subexalata. Glumae admodum distantes, in fructu parum imbricatae, deciduae, ovatae, obtusae, ferrugineae; in dorso viridiores 5-striatae. Stylus 3-fidus. Nux cum $\frac{3}{5}$ parte glumae aequilonga, ellipsoidea, acutius trigona, levis, castaneo-brunea.

Chile: — R. DIGUILLIN (Prov. Nuble), (PHILIPPI n. 44).

Species ob omnium partium (culmi inflorescentiae spicularum) teneritatem singularis; juxta *C. distantem* Linn. f. forsitan ordinanda.

7. *C. esculentus* Linn. Sp. Pl. ed. 1 p. 45, ed. 2 p. 67; Host. Gram. Austr. v. 3 p. 50 t. 75; Kunth Enum. v. 2 p. 64; Boeck! in Linnaea v. 36 (1869—70) p. 287; C. B. Clarke in Journ. Linn. Soc. v. 20 (1883) p. 293, v. 21 (1884) p. 478, et in Hook. f. Fl. Brit. Ind. v. 6 p. 646; Britton! in Bull. Torrey Club v. 13 (1886) p. 240.

C. rotundus Benth.! Pl. Hartweg. p. 28; Liebm. Mexic. Halvgr. p. 24; non Linn.

— Morison Hist. v. 3 p. 237 sect. 8 t. 44 fig. 40.

Glabra. Culmus basi erectus, parum incrassatus, 2—8 dm longus; stolones tenues lateraliter pullulantes, apice saepe bulbigeri, evanidi (neque in rhizomata lignea indurati). Folia longa, saepe 5—8 mm lata. Bracteae umbellam longe superantes, foliiformes. Umbella composita; spiculae numerosae, laxiuscule spicatae, luteae, ferrugineae aut aureae. Glumae per totam fere latitudinem striatae. Rhachilla persistens, anguste alata. Stylus 3-fidus. — Ceteroquin fere ut *C. rotundus* Linn.

Chile: Santo (PHILIPPI n. 88).

Distrib. Per regiones calidiores Orbis Terrarum vulgata.

Cyperi species a me non visae.

8. *C. articulatus* (Presl Rel. Haenk. v. 1 [1828] p. 465).

Aphyllus. Culmus basi tantum vaginatus, strictus, teres, septis transversis distinctus. Umbella decomposita; radii pedicellati. Spiculae alternae, lineares, pedicellatae. Involucrum brevissimum. Glumae ovato-lanceolatae, obtusae nervosae. Nux oblonga trigona minutissime punctulata.

Ins. Chiloe: (fide PRESL).

An = *C. articulatus* Linn.? DESVAEX (cf. C. GAY Chile v. 6 p. 468) exemplum Chilense viderat nullum.

9. *C. lacustris* Philippi in Linnaea v. 33 (1864—5) p. 270; Cesati in Atti Soc. Sc. Np. v. 4 (1874) p. 47; F. Phil. Cat. Pl. Chil. p. 306.

Culmus 5-pollicaris, triqueter, glaber. Folia 3 poll. longa, $4\frac{1}{2}$ lin.

lata. Umbella compacta, capituliformis, 10 lin. in diam.; bractae 3, ima 2 poll. longa. Spicae $3\frac{1}{2}$ lin. longae. Spiculae compressae, sub. 5-florae. Glumae ovatae, multinerviae, mucronulatae, aureo fulvae in dorso virides. Stylus, nux ignoti. — *C. Rancoanus* Philippi in Anal. Univ. Chil. v. 91 (1896) p. 343?

Chile: Lacus Ranco (PHILIPPI).

E. PHILIPPI l. c. *C. lacustris*, *C. laeto* Presl, aut *C. Concepcionis* Steud. est affinis; *C. Rancoanus* *C. lutescenti* Phil. aut *C. nocha* Philippi est affinis. Quoad descriptiones et habitat, plantae videntur eadem.

10. *C. laetus* (Presl Rel. Haenk. v. 1 [1828] p. 172).

Culmus sesquipedalis, triqueter. Folia culmum aequantia, 4 linea lata. Umbella multiradiata, decomposita; radii 7—8, 1—3-pollicares; bractae 5, ima cum umbella aequilonga. Spiculae plurimae, densiuscule spicatae, lanceolatae 8-florae. Glumae lanceolatae acutae, 5-nerviae, fuscae in dorso flavescentes nitidae. Stylus ultra medium 3-fidus. Nux subelliptica, trigona, scabriuscula i. e. oblongo-elliptica trigona nigricans, versus apicem tuberculis parvis scabra.

Chile: (fide PRESL).

C. prolixo Kunth affinis. E nucis descriptione diligenti non videtur hujus generis.

11. *C. Boeckeleri* (Philippi in Anal. Univ. Chil. v. 91 [1896] p. 344).

Culmus 6 dm longus, teretiusculus, levis. Folia dimidium culmus vix aequantibus. Inflorescentia subglobosa, diametri 25 cm; bracteae 3, elongatae; capitula sessilia aut brevissime pedunculata, densiflora, 9 mm longa, totidem crassa. Spicae 4—5 mm longae, sub 5-florae, confertae. Glumae terminales oppositae; glumae $2\frac{1}{2}$ mm longae, ovatae, enerviae, dorso virides ceteroquin rufae. Nux dimidiam glumam occupans, cinerea, oblonga utrinque attenuata. Stigmata 3.

Chile: (fide PHILIPPI).

4. *Mariscus*.

Mariscus Gaertn. Fruct. v. 4 (1788) p. 44 t. 2 (Bobartella excl.); Nees in Linnaea v. 9 (1834) p. 286 et in Mart. Brasil. v. 2 pars 1 p. 43; Kunth Enum. v. 2 p. 115 pro magna parte; C. B. Clarke in Hook. Fl. Brit. Ind. v. 6 p. 649 (Subgen. *Torulinio* excl.).

Didymia Philippi in Engl. Bot. Jahrb. v. 8 (1887) p. 37 t. 4.

Cylindrolepis Boeck. in Bot. Centralblatt v. 39 (1889) p. 73.

Kyllingia Sect. *Pseudokyllingia* Boeck. in Linnaea v. 35 (1867—8) p. 432.

Dichostylis Baldwinii Palla in Engl. Bot. Jahrb. v. 10 (1888) p. 296.

Spiculae pauci — aut multi-nucigerae. Spiculae rhachilla supra 2 glumas imas vacuas (ope pulvini disarticulata) decidua. Glumae nucigerae diu persistentes. Ceteroquin ut *Cyperus*.

Species 180, per Orbis Terrarum regiones calidiores sparsae,

1. *M. Conceptionis.*

Cyperus Conceptionis Steud.! Cyp. p. 42.

C. laetus Desv. in C. Gay Chile v. 6 p. 6 p. 168; F. Phil. Cat. Pl. Chil. p. 307?; vix Kunth, minime Presl.

C. Chilensis Boeck.! in Linnaea v. 36 (1869—70) p. 323; F. Phil. Cat. Pl. Chil. p. 306.

C. Paposanus Philippi! in Anal. Univ. Chil. v. 94 (1896) p. 343.

C. Nocha Philippi in Anal. Univ. Chil. v. 94 (1896) p. 346.

C. laetus Kunth var. e. Benth. ms.

Glaber. Rhizoma 4 cm longum, ligneum. Culmi 2—7 dm longi, mediocres aut subrobusti, apice trigoni leves. Folia cum $\frac{1}{2}$ — $\frac{3}{4}$ parte culmi aequilonga, 4 mm lata. Umbellae radii 3—8, usque ad 5 cm longi; bracteae 3—5, ima usque ad 8—15 cm longa foliiformis. Umbellula (in apice radii primarii) unaquaeque congesta, 20 mm longa, 45 mm lata, e 3—4 spicis exstructa, bracteolae (in umbellulae basi) 0—4 cm longae. Spicae e 10—40 spiculus exstructae, dense spicatae, summa cylindrico-quadrata. Spiculae 7 mm longae 2 mm latae, 4—6-nucigerae, luteae vel fusce sanguineo-bruneae. Glumae obtusae microscopice apiculatae, longitudinaliter 9-striatae. Nux cum $\frac{2}{3}$ parte glumae aequilonga, oblongo-obovoidea, apiculata nigra.

Chile; Lesson; Valdivia (PHILIPPI n. 458, BRIDGES n. 836); Corral (PHILIPPI n. 44); S. Ignacio de Remehue (PHILIPPI n. 420); Paposo (PHILIPPI n. 2); Araucaria (J. BALL).

Species in Chile endemica; sed hujus subsectionis species plures inter se admodum affines sunt. *Mariscus rigens* (Presl sub *Cypero*) in Argentina et Uruguay a *M. Conceptionis* ex sententia Benth. vix sat differt. *Mariscus laetus* (Kunth sub *Cypero*), *M. Balansae* P. Maury sub *Cypero*, parum distant.

3. *Torulinium.*

Torulinium Desv. in Hamilt. Prod. Ind. Occid. (1825) p. 45; C. B. Clarke in Urban Symb. Antill. v. 2 fasc. 4 p. 53.

Epiphytis Trin. Fund. (1820) p. 98 t. 4.

Dictidium Schrad. in Mart. Brasil. v. 2 pars 4 (1842) p. 51, t. 4, 2.

Pappi sp. Willd. in Abhandl. Akad. Berlin (1842) p. 73.

Cyperi sp. Forst. Prod. Ins. Austr. p. 6; Boeck. in Linnaea v. 36 (1869—70) p. 407; Benth. in Benth. et Hook. f. Gen. Pl. v. 3 p. 1045.

Marisci sp. H.B.K. Nov. Gen. et Sp. v. 4 p. 212; C. B. Clarke in Hook. f. Fl. Brit. Ind. v. 6 p. 624.

Spiculae rhacheola in nodos (4—15) singulos soluta. Nux inter rhacheolae alas subinclusa, cum nodo decidua; ceteroquin ut *Mariscus* aut *Cyperus*.

Species 8; quarum 7 Americanae, 1 Cosmopolitana.

1. *T. Poeppigii*.

Cyperus Poeppigii Kunth Enum. v. 2 p. 90; Desv. in C. Gay Chile v. 6 p. 169; F. Phil. Cat. Pl. Chil. p. 307; Boeck. in Linnaea v. 36 (1869—70) p. 394.

C. acaulis Steud. in Flora v. 25 (1842) p. 599, et Cyp. p. 50.

Mariscus castaneus Kunze ms. fide Kunth.

Glabrum. Culmi caespitosi, 4—40 cm longi. Folia culmum longe superantia 3—4 mm lata. Umbella 4—3 cm in diam., contracta, subsimplex; bractae 3—4, usque ad 6—40 cm longae, foliiformes. Spiculae usque ad 8 mm longae; 3—5-nucigerae; rhachilla flexuosa.

Chile: (POEPPIG n. 94), Talcahuana (PHILIPPI), Lacus Aculeo (BERTERO n. 213 partim, PHILIPPI n. 3, 26), Rio Colorado (POEPPIG n. 40), San Vincente (PHILIPPI n. 90).

6. *Eleocharis*.

Eleocharis R. Br. Prod. (1840) p. 224; Kunth Enum. v. 2 p. 439; N. L. Britton in Journ. New York Microsc. Soc. v. 5 (1889) p. 95.

Heleocharis Lestib. Essai Cyp. (1849) p. 44 (= *Eleocharidis* pars stigmatum 2-fido); Desv. in C. Gay Chile v. 6 p. 470 t. 74 (= *Eleocharis* R. Br. omnino); Boeck. in Linnaea v. 36 (1869—70) p. 448, v. 38 (1874) p. 372.

Scirpi sp. Linn. Sp. Pl. p. 70.

Eleogenus Nees in Linnaea v. 9 (1834) p. 296.

Scirpidium Nees in Linnaea v. 9 (1834) p. 293.

Chaetocyperus Nees in Linnaea v. 9 (1834) p. 289.

Glumae 3-multi-spirae! ima caeteris non aut vix longior. Stylibasis bulbiformis aut dilatata in nuce persistens, a nucis corpore (nisi in *E. simulante*) distincta separata. — Culmus glaber, aphyllus, monostachyus.

Species 445; per Orbem Terrarum sparsae.

Scirpi species aphyllae (*S. pauciflorus* Light. etc.) ab *Eleocharide* ob nucem apice in stylum sine constrictione sensim transeuntem distinguuntur.

Sect. I. *Eleogenus* Nees in Wight Contrib. p. 442 (Genus);

C. B. Clarke in Hook. f. Fl. Brit. Ind. v. 6 p. 627, in Urban

Fl. Ind. Occid. v. 2 p. 59. — Stylus 2-fidus.

* Vagina summa apice scariosa alba crispata detergibilis.

Spicula 8—12 mm longa. Setae hypogynae rufescentes 4. *E. maculosa*.

Spicula 5 mm longa. Setae hypogynae albae aut vix luteae 2. *E. Vincentina*.

** Vagina summae margo firmus, herbaceus, persistens.

Vagina summa in altero latere 4—7 mm producta . . 6. *E. simulans*.

Vagina summa truncata interdum in altero latere minute dentata.

Spicula 4—2 cm longa.

Styli basis multum incrassata, tuberculiformis.

Culmi mediocres. Rhizoma robustius 3. *E. palustris*.

Culmi graciles. Rhizoma tenue, lignescens. 4. *E. appendiculata*.

Styli basis anguste conica, sublinearis 5. *E. melanostachys*.

Spicula 22 mm longa, densissima 7. *E. nodulosa*.

Sect. II. *Eu-Eleocharis* C. B. Clarke in Hook. f. Fl. Brit. Ind.

v. 6 p. 628, in Urban Fl. Ind. Occid. v. 2 p. 59. — Stylus 3-fidus.

Sect. *Aciculares*. Nux longitudinaliter costata, inter costas horizontaliter trabeculata.

Culmi tenues aut capillacei. Spiculae 3—6 mm longae 8. *E. acicularis*.

Culmi graciles nec capillacei. Spiculae 6—12 mm longae 9. *E. Bonariensis*.

Sect. 2. *Leiocarpicae*. Nux levis, aut plus minus obscure reticulata. (Rhizoma repens.)

Styli basis cum nuce aequilata 10. *E. pachycarpa*.

Stylbasis nuce angustior, cum $\frac{1}{2}$ parte nucis subaequilata.

Spicula nigro-castanea 11. *E. albi-bracteata*.

Spicula fusce straminea, brunescens 12. *E. Lechleri*.

Styli-basis cum $\frac{1}{4}$ parte nucis vix aequilata.

Nux aureo-lutea 13. *E. montana*.

Nux alba; stylo-basis nigra 14. *E. melanomphala*.

4. *E. maculosa* R. Br. Prod. (1840) p. 224 in Obs.; Kunth Enum. v. 2 p. 146; C. B. Clarke in Urban Fl. Ind. Occid. v. 2 p. 64.

Scirpus maculosus Vahl Enum. v. 2 p. 247.

Heliocharis maculosa Boeck. in Linnaea v. 36 (1869—70) p. 460.

Rhizoma repens. Culmi 40—35 cm longi; vaginae apice scarioso-albae, detergibiles. Spicula 8—12 mm longa, ovoidea, castanea aut fusco-nigra, densiflora. Setae hypogynae 7—8, cum nuce subaequilongae, rufescentes aut ferrugineae. Stylus 2-fidus. Nux obovoidea, apice angustata, plano-convexa, castanea, lucida, levis; stylobasis parva, conica, pallida aut lutescens.

Distrib. A. Texas et Mexico usque ad Brasil. Australiorem sat frequens.

Exemplum in Chile lectum visum est nullum.

2. *E. Vincentina* C. B. Clarke.

Heliocharis melanocarpa Philippi in Linnaea v. 29 (1857—8) p. 85; F. Phil. Cat. Pl. Chil. p. 308; non Boeck.

H. Vincentina Philippi in Annal. Univ. Chile v. 93. (1896) p. 349.

H. hyalinovaginata Philippi in Anal. Univ. Chile v. 93 (1896) p. 352.

H. maculosa Desv. in C. Gay Chile v. 6 p. 172; F. Phil. Cat. Pl. Chil. p. 308.

Isolepis fuscopurpurea Steud. Cyp. p. 99.

Rhizoma tenue, horizontale, repens. Culmi caespitosi, 3 cm longi, pro longitudine robustiores rigidi; vaginae apice conspicue scarioso-albae, detergibiles. Spicula 4 mm longa, ovoidea, castanea aut fusce nigra. Glumae

undique imbricatae, 6—14-nuciferae; ima paullo major, carina lata pallida, persistens. Setae hypogynae 7, cum nuce aequilongae, albiae aut pallide luteae, retrorsim scabrae. Stylus 2-fidus. Nux obovoidea, plano-convexa, apice angustata, lucide castanea; stylobasis depresse conica pallida aut lutescens.

Chile: Talcahuano (POEPPIG, PHILIPPI n. 45), Sao Vicente prope ad Talcahuano (PHILIPPI n. 130), Constitucion (REICHE, fide PHILIPPI), Maullin (PHILIPPI n. 44).

Differt (ab *E. maculosa* R. Br.), culmis brevibus, setis hypogynis pallidis (nec rufescentibus), ac praesertim spiculis minoribus. Differt (ab *E. ochreate* Nees) spiculis castaneis (neque albidis), habitu rigidior.

Var. β *areolata* Caules 5—14 cm longi, minus rigidi saepe arcuati.

Heleocharis areolata Kunze ms. ex Johow! Juan Fernandez p. 443.

H. maculosa Desv. in C. Gay Chile v. 6 p. 172; F. Phil. Cat. Pl. Chil. p. 308.

Scirpus Desvauxi Philippi in Anal. Univ. Chil. v. 93 (1896) p. 482.

Chile: Bichuquen (PHILIPPI n. 46), Concepcion (PHILIPPI n. 417 a. Banos de Panimavida, in provincia Linares (PHILIPPI n. 32) (*S. Dessaueri*).

Juan Fernandez: Reed.

»Hai 1 estilo dividido en 3 estigmas«, PHILIPPI in Anal. Univ. Chil. v. 93 p. 482. Sed in PHILIPPI n. 32 (*Scirpus Dessaueri*, inscripto) stylus mihi videtur 2-fidus.

3. *E. palustris* R. Br. Prod. (1810) p. 224 in adnot.; Kunth Enum. v. 2 p. 147; Hook. f. Fl. Antaret. v. 2 p. 360 syn. excl.; Heiberg in Bot. Tidskr. v. 2 (Kjob. 1867—8) p. 157, t. 1 fig. 1—13, t. 2, 3; C. B. Clarke in Hook. f. Fl. Brit. Ind. v. 6 p. 628 et in Dyer Fl. Cap. v. 7 p. 198.

F. uniglumis Schultes in Roem. et Sch. Syst. v. 2 Mant. p. 88, 539.

Scirpus palustris Linn. Sp. Pl. ed. 2 p. 70 partim.

Heleocharis palustris Lindl. Syn. Brit. Fl. p. 280; Desv.! in C. Gay Chile v. 6 p. 171, Boeck. in Linnaea v. 36 (1869—70), p. 466 (exemplis 3-stigmatosis exclusis); F. Philippi Cat. Pl. Chil. p. 308 (syn. ambobus exclusis).

H. Valdiviana Philippi! in Linnaea v. 29 (1857—58) p. 77; F. Philippi Cat. Pl. Chil. p. 308.

H. limosa F. Philippi Cat. Pl. Chil. p. 308.

H. Fruegiana Philippi! (ms. ?) in herb. n. 424a.

Rhizoma repens, robustius. Culmi 4—5 dm longi, medioeres; vagina summa apice herbacea persistens, truncata. Spicula 4—2 cm longa, 4—6 mm lata, subcylindrica, castanea aut fuscae straminea. Setae 6 vel pauciores, variables, nucem raro superantes, ferrugineae — Stylus 2-fidus. Nux obovoidea, plano-compressa, apice angustata, levis, flava aut brunescens; stylobasis conica aut ovoidea, apice nucis latior.

Chile (C. GAY, PHILIPPI n. 134), Principal (PHILIPPI n. 407); Chile Central, Coihuin (PHILIPPI n. 47), Cerro de Bravo (PHILIPPI n. 53), Valdivia (PHILIPPI). Constitucion (PHILIPPI).

Chiloe (PHILIPPI n. 249), Fuegia (PHILIPPI n. 124a), Portus Desire, Darwin.

Distrib. Per Orbem Terrarum fere totum vulgata, in tropicis minus frequens.

4. *E. appendiculata*.

Helcocharis appendiculata Philippi in Linnaea v. 29 (1857—58) p. 85; F. Philippi Cat. Pl. Chil. p. 308.

Culmi 1—2 dm longi, graciles, in rhizomate brevi tenuiter ligneo approximati, stolones graciles. Spicula usque ad 11 mm longa, 2—3 mm lata, anguste cylindrica. Stylus 2-fidus. Setae albae nucem cum stylobasi subsuperantes. Nux fere aureo-flava; stylobasis majuscula subcuboidea. Ceteroquin ut *E. palustris* R. Br.

Chile: Santiago (PHILIPPI n. 38).

Species critica, ob culmos rhizoma tenues, ab *E. palustris* distingui potest.

5. *E. melanostachys*.

E. palustris (forma), Kunth! Enum. v. 2 p. 147; Hook. f. Fl. Antarct. v. 2 p. 360.

Scirpus melanostachys d'Urville! in Mem. Soc. Linn. de Paris v. 4 (1826) p. 600; Gaud. in Freycinet Voy. (1826) p. 434.

Vimbristylis melanostachys Brongn. in Duperrey Voy. Coquille pars. 2 (1829) p. 181; Steud. Cyp. p. 107.

Helcocharis macrorrhiza Boeck.! in Flora v. 41 (1858) p. 443.

H. palustris Boeck. in Linnaea v. 36 (1869—70) p. 468.

H. litoralis Philippi! in Linnaea v. 29 (1857—58) p. 77; Boeck.! in Linnaea v. 36 (1869—70) p. 465; F. Philippi Cat. Pl. Chil. p. 308.

Stylobasis angusta conica, basi truncata nec contracta, in apice nucis sessilis, neque hoc latior; ceteroquin ut *E. palustris*.

Chile (PHILIPPI n. 108), Corral (PHILIPPI n. 37), Ins. Falkland; (d'URVILLE, J. D. HOOKER n. 100, WRIGHT, ABBOTT).

6. *E. simulans* C. B. Clarke ms. in herb. Delessert.

Scirpus Andinus Philippi in Anal. Univ. Chil. (1873) p. 554; F. Philippi Cat. Fl. Chil. p. 310.

Culmi 3—4 dm longi; vagina summa in altero latere producta, 4—7 mm longa, ovata aut sublancoolata. Spicula 4 cm longa, 6 mm lata, ellipsoidea, brunnea aut subcastanea. Glumae 5 mm longae, elliptico-lanceolatae, vix marginatae; 2 imae vacuae, a fertilibus parum diversae. Setae hypogynae irregulares, saepe 3 quarum 1 cum nuce aequilonga, tenuissimae. Stylus 2-fidus. Nux obovoidea plano-compressa, apice triangularis; stylobasis vix incrassata, cum apice nucis usa.

Chile (herb. Delessert); Santiago, Cordillera (PHILIPPI n. 36).

Species *Scirpum* (Genus) mire simulans; inter *Scirpum* et *Eleocharidem* quasi media.

7. *E. nodulosa* Schultes in Roem. et Sch. Syst. v. 2 Mant. (1824) p. 87; Kunth Enum. v. 2 p. 456; Maury! in Mem. Soc. Genèv. v. 34 (1890) p. 440; C. B. Clarke in Urban Fl. Ind. Occid. v. 2 p. 67.

Scirpus nodulosus Roth Nov. Pl. Sp. p. 29; Griseb. Symb. Fl. Argent. p. 312.

S. heteromorphus F. Phil. Cat. Pl. Chil. p. 344.

Heleocharis nodulosa Boeck.! in Flora v. 43 (1860) p. 4, et in Linnaea v. 36 (1869—70) p. 468.

Isolepis heteromorpha Steud.! Cyp. p. 400, in Lechl. Berb. Amer. Austral. p. 53.

Culmi in sicco obscurius septati aut subnodulosi. Spiculae usque ad 22 mm longae, 5 mm latae, densissimae. Glumae fertiles pernumerosae, in spiris numerosis imbricatae; 3 imae vacuae breviores rotundatae. — Nux (quam *E. palustris*) minor, subtruncata; stylobasis fusco-nigra. — Ceteroquin ut *E. palustris*.

Chile (GILLIES); Valdivia (LECHLER n. 454).

Distrib. A Patagonia usque ad Mexico vulgaris, in America boreali temperata rara.

8. *E. acicularis* R. Br. Prod. (1840) p. 224 in nota, Kunth Enum. v. 2 p. 444; C. B. Clarke in Hook. f. Fl. Brit. Ind. v. 6 p. 628, in Urban Fl. Ind. Occid. v. 2 p. 67.

E. costulata Nees! in Linnaea v. 9 (1834) p. 294; Kunth Enum. v. 2 p. 442.

E. radicans Kunth! Enum. v. 2 p. 442; Steud. Cyp. p. 75.

Scirpus acicularis Linn. Sp. Pl. ed. 1 p. 48, ed. 2 p. 74 partim, nec Linn. herb.; Reich. Ic. Fl. Germ. v. 8 p. 36 t. 294 fig. 695, 696, 697.

S. retroflexus Griseb.! Symb. Argent. p. 344.

S. radicans Poir. in Lam. Encycl. v. 6 p. 751 syn. excl. (fide Kunth).

Heleocharis acicularis Koch Syn. Fl. Germ. ed. 2 p. 853; Boeck. in Linnaea v. 36 (1869—70) p. 434.

H. rivularis Philippi in Linnaea v. 33 (1864—65) p. 270; Boeck. in Linnaea v. 36 (1869—70) p. 427, v. 38 (1874) p. 408.

H. costulata Desv.! in C. Gay Chile v. 6 p. 472 t. 74 fig. 2; Boeck.! in Linnaea v. 36 (1869—70) p. 433 partim; F. Philippi Cat. Pl. Chil. p. 308.

H. radicans F. Phil. Cat. Pl. Chil. p. 308.

Scirpidium aciculare Nees in Linnaea v. 9 (1834) p. 293.

Limnochloa costulata Kunth Enum. v. 2 p. 442 in citat.

Chaetocyperus costulatus Nees! in Nova Acta Nat. Cur. v. 49 Suppl. 4 (1843) p. 96.

Ch. radicans Steud.! Cyp. p. 74.

Rhizoma pertenuae. Culmi caespitosi, 5—15 cm longi, graciles aut capillares. Spiculae 3—6 mm longae, pauciflorae aut pluriflorae. Glumae

pallidae, in lateribus saepe fusco-sanguineo-maculatae. Stylus 3-fidus. Nux oblongo-lanceolata, straminea, longitudinaliter 12—16-costata et inter costas horizontaliter trabeculata; stylobasis parva, e basi bulbosa conica.

Chile. Rencagua (BERTERO n. 610), S. Jago (C. GAY n. 503), Guinam aida (PHILIPPI n. 119), Santiago (PHILIPPI n. 40), Aculeo (GERMAIN n. 106). Araucaria: Lola (SAVATIER n. 106).

Distrib. Per orbem Terrarum fere totum.

In *E. aciculari* Europaea, culmi in rhizomate repente distanter fasciculati, setacci aut capillacei videntur; forma, in Chile rarior, in herb. Philippi adest. *E. costulata* (Neesii! exemplum typicum) ab exemplis debilibus *E. acicularis* Europaeae nullo modo differt. In *E. costulata* Desv., culmi dense caespitosi, robustiores, glumae non maculatae; forma in Chile frequens ab Argentina usque ad Texas et Californiam sparsa.

9. *E. Bonariensis* Nees! in Hook. Journ. Bot. v. 2 (1810) p. 398; Britton in Journ. New York Microsc. Soc. v. 5 (1889) p. 105.

E. striatula Maury! in Mem. Soc. Genève. v. 31 (1890) p. 135.

Chaetocyperus Bonariensis Nees in Mart. Brasil. v. 2 pars 4 p. 96 partim.

Helcocharis striatula Desv.! in C. Gay Chile v. 6 p. 173 t. 71 fig. 3; Boeck.; in Linnaea v. 36 (1869—70) p. 432; F. Philippi Cat. Pl. Chil. p. 308.

H. Bonariensis Boeck.! in Linnaea v. 36 (1869—70) p. 438.

H. squamata Boeck.! Cyp. Novae Heft 2 (1890) p. 11.

Scirpus striatulus Griseb.! Pl. Lorentz. p. 218.

Culmi 4—4 dm longi, tenuiores nec capillacei. Spiculae 6—12 mm longae, 8—multiflorae, maturae saepius coloratae raro pallidae; ceteroquin ut *E. acicularis* R. Br.

Chile: Gillies; Santiago (PHILIPPI n. 705, C. GAY n. 508); Valparaiso (BORCHERS n. 49); Rencagua (GUILLEMIN n. 615).

Distrib. In Argentina frequens, in Brasil. australi per Bolivia usque ad Columbia sparsa.

Species ab *E. aciculari* vix nisi magnitudine distinguenda.

10. *E. pachycarpa*.

E. leptocaulis Steud. in Lechler Berber. Amer. Austral. p. 53, et Cyp. p. 77.

Helcocharis pachycarpa Desv.! in C. Gay Chile v. 6 p. 174; F. Philippi Cat. Pl. Chil. p. 308; Boeck. in Linnaea v. 36 (1869—70) p. 451.

H. fusco-sanguinea Boeck.! in Linnaea v. 36 (1869—70) p. 425; F. Philippi Cat. Pl. Chil. p. 308.

H. dubia Philippi! in Linnaea v. 29 (1857—58) p. 77; F. Philippi Cat. Pl. Chil. p. 308.

H. nana Boeck.! in Linnaea v. 36 (1869—70) p. 424 partim.

H. bicarpa Philippi! in Anal. Univ. Chil. (1873) p. 553, (1896) p. 350; F. Philippi Cat. Pl. Chil. p. 308.

H. leptocaulis F. Phil. Cat. Pl. Chil. p. 308; Philippi! in Anal. Univ. Chil. v. 93 (1896) p. 349 (leptocaulos).

H. lepida Phil. in Anal. Univ. Chil. v. 93 (1896) p. 349.

Scirpus Baeothryon Steud. ms. in Lechler n. 566^a.

S. setiformis Schrader ms., fide Boeckeler.

Isolepis fusco-purpurea Philippi (herb. propr. n. 52), an Steudel partim?

Rhizoma repens, tenuius, castaneum. Culmi 1—3 dm longi, tenuiores, plus minus 4-angulares; vagina summa apice herbacea, in altero latere breviter producta ovata. Spicula laxiuscula, 5—10 mm longa, 2—4 mm lata, 6—14-flora. Glumae 3—5-spirae, castaneae in dorso lutescentes in marginibus scariosae. Setae c. 4, cum nuce subaequilongae, pallidae, debiles, minute retrorsim scabrae. Stylus 3-fidus. Nux majuscula, trigona, obovoidea, apice truncata, levis, luteo-brunnea; stylobasis pyramidalis, cum nuce subaequilata, depressa, basi quasi-marginata fusca.

Chile (OCHSENIUS n. 23, CHAMISSE n. 131), Valdivia (PHILIPPI, LECHLER n. 455 in herb. Kew); Ins. Valenzuela (LECHLER n. 249), Arica (LECHLER n. 566^a), Colchagua (PHILIPPI n. 979), Corral (PHILIPPI), Constitucion (PHILIPPI), Maullin (PHILIPPI n. 52), Vichuquen (PHILIPPI n. 60), Prov. Ñuble (PHILIPPI n. 49), Valparaiso (PHILIPPI n. 97), Sao Vicente (PHILIPPI n. 447^b), Rio Claro (ALBERT n. 17C), Paso Cruz, 34° s. L., alt. 2100 m (O. KUNTZE n. 128 bis).

Distrib. In Monte Video et Paraguay, rara.

Heleocharis leptocaulis Philippi ab *E. pachycarpa* non differt. *Elleocharis leptocaulis* Steud. est LECHLER n. 249; hujus exempla a me visa sunt juvenilia, quodammodo incerta.

44. *E. albibracteata* Nees in Linnaea v. 9 (1834) p. 294; Kunth Enum. v. 2 p. 143; Nees et Meyen ms. fide Nees.

Chaetocyperus albibracteatus Nees! in Nova Acta Nat. Cur. v. 19 Suppl. 4 (1843) p. 95 (pl. Guianensi excl.); Steud. Cyp. p. 74; Nees et Meyen ms. fide Nees.

Limnocharis albibracteata Kunth Enum. v. 2 p. 143 in citat.

Heleocharis melanocephala Desv.! in C. Gay Chile v. 6 p. 175 t. 71 fig. 4; F. Phil. Cat. Pl. Chil. p. 308; Johow! Juan Fernandez p. 143.

H. albibracteata Boeck.! in Linnaea v. 36 (1869—70) p. 423; F. Phil. Cat. Pl. Chil. p. 308.

Scirpus melanocephalus Griseb. Symb. Fl. Argent. p. 311.

Limnochloa albibracteata Nees! ms. partim.

Rhizoma repens, tenue, lignescens, atosanguineum. Culmi 2—15 cm longi, tenues; vagina summa apice hyalina (sed persistens) in altero latere altius fissa. Spicula 3—5 mm longa, atosanguinea aut castanea, 3—6-nucigera. Glumae oligospirae, obtusae, in margine anguste albo-hyalinae. Stylus 3-fidus. Nux oblongo-obovoidea, trigona, apice angustata, pallida

aut matura lutescens, levis, obscure longitudinaliter 40—50-striatula, obsolete reticulata; stylobasis conica, cum nucis apice aequilata, nuce ipsa angustior.

Chile: usque ad 3000 m alt. (PEARCE, C. GAY n. 804, DUSÉN n. 644), Coquimbo in Andes (REED, C. GAY n. 379, 748), Valdivia (PHILIPPI), Talca (PHILIPPI n. 51), Banos de Chillan (PHILIPPI n. 444), Juan Fernandez (PHILIPPI n. 51).

Distrib. In Argentina frequens, in Bolivia (alt. 3—4000 m).

42. *E. Lechleri*.

Heleocharis Lechleri Boeck.! in Linnaea v. 36 (1869—70) p. 422; F. Philippi Cat. Pl. Chil. p. 308.

Rhizoma repens, pertenuae. Culmi 2—5 cm longi, caespitosa, filiformes; vagina summa apice herbacea, persistens. Spicula 2—3 mm longa, 3—5-nucigera, fusco-straminea, brunescens. Setae 4—6, inaequales, 4—2 cum nuce saepe aequilonga, tenues, papilloae, rubro-brunee. Stylus 3-fidus. Nux oblongo-ellipsoidea, trigona, levis, flavida, apice subito angustata, vix obsolete striatula; stylobasis depresso-conica, subdisciformis, cum nucis apice subaequilata.

Chile: Cordillera del Ranco (LECHLER n. 795), Cordillera Pelada (PHILIPPI!).

Distrib. In Bolivia (alt. 3250 m).

43. *E. montana* Roem. et Sch. Syst. v. 2 (1847) p. 453.

E. Dombeyana Kunth Enum. v. 2 p. 445.

Scirpus montanus H.B.K. Nov. Gen. et Sp. v. 4 p. 226.

Heleocharis montana Boeck. in Linnaea v. 36 (1869—70) p. 456.

H. Dombeyana Boeck.! in Linnaea v. 36 (1869—70) p. 450.

Rhizoma longe repens. Culmi 4—5 dm longi, mediocres; vagina summa apice truncata, dente lineari erecto. Spicula 5—11 mm longa, 12—40-nucigera, ellipsoidea aut cylindrica, castaneo-maculata. Setae 6—5, nucem saepe superantes, cinnamomeae. Stylus 3-fidus. Nux obovoidea, trigona, apice multum angustata, fere levis, lutea aut aureo-lutea; stylobasis parva, anguste conica.

Chile: Quillota (GERMAIN), Valparaiso (PHILIPPI n. 43), Casa Cancha (WILKES), Maldonado (KING).

Distrib. In omni America Calidiore sat communis. In Mexico, vaginae summae dens saepe desideratur.

44. *E. melanophala*.

Culmi 10—14 cm longi, graciliores; vagina summa apice truncata. Spicula 6 mm longa, anguste, ovoidea, pauciflora, 4—4-nucigera. Glumae majusculae brunee. Setae 5, cum $\frac{1}{2}$ parte nucis aequilongae, retrorsim scabrae, brunee. Stylus 3-fidus. Nux pro genere magna, late ovoidea trigona, apice longius conoideo-pyramidata, levis, alba; stylobasis perparva, acute pyramidalis, nigro-castanea, in apice nucis sessilis.

Chile: Cordillera, alt. 2400 m, Paso Cruz 34° s. L. (O. KUNTZE n. 30 bis).

Planta, cum nuce magna, *E. Atacamensi* primo aspectu similis, differt stylobasi a nuce conspicue distincta.

Species non visae.

15. *E. coronata* Steud. Cyp. (1855) p. 77.

Radix repens. Culmi 4 dm longi; vaginae apice truncatae. Spicula ovoidea, 8—12-flora. Glumae bruneae, in margine hyalinae. Setae 3, tenuissimae, cum $\frac{1}{2}$ parte nucis vix aequilongae, leves. Stylus 3-fidus. Nux ovoidea, basi tuberculata, medio nitida; stylobasis mitraeformis, crenulato-marginata, alba, verrucosulo-puncticulata.

Chile: Concepcion (D'URVILLE ex STEUDEL).

An = *E. pachycarpa* supra? (C. B. CLARKE).

16. *E. Reichei*.

Heleocharis Reichei Philippi in Anal. Univ. Chil. v. 93 (1896) p. 35; Boeckeler ms. e Philippi.

Rhizoma elongatum, horizontale, $4\frac{1}{2}$ lineam crassum. Culmi 2—3 poll. longi, validuli; vagina summa, apice truncata, herbacea, in altero latere lanceolatim producta. Spicula 5—7 lin. longa, oblongo-lanceolata. Setae 0. Nux majuscula, obovoidea, turgide biconvexa, levis, albida; stylobasis brevis conica.

Chile: Constitucion (REICHE e PHILIPPI).

An = *E. palustris* R. Brown, forma setis obsoletis (C. B. CLARKE?).

7. *Scirpus*.

Scirpus Linn. Gen. n. 67 partim; Desv. in C. Gay Chile v. 6 p. 178; Benth. in Benth. et Hook. f. Gen. Pl. v. 3 p. 1049; C. B. Clarke in Hook. f. Fl. Brit. Ind. v. 6 p. 653. — cf. Palla in Engl. Bot. Jahrb. v. 10 (1888) p. 293—304 t. 11.

Isolepis R. Br. Prodr. p. 221; Kunth Enum. II. 187; Desv. in C. Gay Chile v. 6 p. 184.

Malacochaete Nees in Linnaea v. 9 (1834) p. 292, in Nova Acta Nat. Cur. v. 19 Suppl. 1 (1843) p. 89; Desv. in C. Gay Chile v. 6 p. 176.

Dichromena Desv. in C. Gay Chile v. 6 p. 189, non Vahl.

Glumae 3-multispirae. Stylobasis in nucis apicem (sine constrictione aut linea conspicua) sensim transiens.

— Glaber. Culmus enodosus, prope ad basin foliatus vel vaginatus, apice caput aut umbellam gerens.

Species 125, in omnibus regionibus sparsae.

Sect. 1. **Monostachyi.** Plantae parvae aut tenues. Culmi (in speciebus Chilensibus), monostachyi. Stylus in speciebus Chilensibus 3-fidus. Setae hypogynae obviae.

Vaginae basales paucae inconspicuae, summa apice truncata 1. *S. pauciflorus*.

Vaginae basales plures imbricatae, summa folium viride gerens 2. *S. caespitosus*.

Sect. 2. **Isolepis** (Genus) R. Br. Prodr. p. 224. Culmi caput aut spiculam 4 gerentes. Setae hypogynae plane 0. Stylus 3-fidus.

Plantae minores, foliigerac.

Culmus 4—3, saepissime 4, spiculas gerens.

Folia tenuia. Nux parva, trigona, apice angustata. 3. *S. cernuus*.

Folia rigida. Nux majuscula, biconvexa, apice perobtus 4. *S. Atacamensis*.

Culmus 2—12 (raro 4) spiculas gerens 5. *S. imundatus*.

Planta robustior, 4—40 dm longa, aphylla 6. *S. nodosus*.

Stylus 2-fidus.

Culmi 2—5 cm longi; spiculae pallidae. 7. *S. perpusillus*.

Culmi 2 dm longi; spiculae castaneo-rubrae. 8. *S. Philippii*.

Sect. 3. **Eu-Scirpus.** Culmi caput aut umbellam gerentes.

Setae hypogynae obviae, in speciebus paucis tenues aut casu obsoletae.

Plantae parvulae. Culmus raro usque ad 4 dm longus.

Spiculae in capite unico congestae aut 4. Stylus 3-fidus.

Folia linearia. Spiculae 3—4, saepius 4.

Caput stramineum. Setae vix papillosae 9. *S. Hieronymi*.

Caput bruneum. Setae retrorsim scabrae 10. *S. deserticola*.

Folia basi plana, anguste lanceolata. Spiculae saepe 6—3, rarius 4.

Culmus 0—4 cm longus. Glumae 5—6 mm longae . 11. *S. acaulis*.

Culmus 5—6 cm longi. Glumae 7—8 mm longae. . 12. *S. macrolepis*.

Plantae robustae aut mediocres.

Culmi caput gerentes. Stylus 2-fidus (vel raro 3-fidus).

Folia convoluto-teretia. Setae breves 13. *S. Nevadaensis*.

Folia 0 aut plana. Setae evolutae 14. *S. Americanus*.

Culmi umbellam gerentes.

Folia longa. Stylus 3-fidus 15. *S. asper*.

Folia subnulla. Stylus 2-fidus 16. *S. riparius*.

Plantae vix mediocres. Corymbus parvulus, saepius ad

caput (vel spiculam) contractus. Stylus 2-fidus . . . 17. *S. melanocaulos*.

4. *S. pauciflorus* Lightf. Fl. Scot. (1777) p. 1078; Boeck. in Linnaea v. 36 (1869—70) p. 479; C. B. Clarke in Hook. f. Fl. Brit. Ind. v. 6 p. 654.

S. Bocothryon Ehrhr.! Phytoph. (1780) n. 34; Linn. f. Suppl. p. 103; Kunth Enum. v. 2 p. 123.

S. Andinus Philippi in Anal. Univ. Chil. (1873) p. 554 (syn. Desvaux excl.); F. Philippi Cat. Pl. Chil. p. 340.

Eleocharis pauciflora Link. Hort. Berol. v. 4 p. 284; Hook. Fl. Bor. Amer. v. 2 p. 229.

Heleocharis Atacamensis Philippi! Fl. Atacama p. 53, in Anal. Univ. Chil. v. 93 (1896) p. 349; F. Philippi Cat. Pl. Chil. p. 308; Boeck. in Linnaea v. 36 (1869—70) p. 454.

Isolepis Andina Philippi! (ms.?) in herb. propr. n. 59.

Trichophorum pauciflorum Palla in Sitzb. Z. B. G. v. 38 (1888) p. 49, fide Richter.

Stolones saepe adsunt. Culmi 5—25 cm longi, rigidiusculi, enodosi, apice 1 spiculam gerentes, aphylli; vagina summa apice oblique truncata. Spicula quasi-terminalis, ebracteata, pauciflora, 4—7 mm longa. Glumae 3—4 mm longae, elliptico-oblongae, fusco-castaneae aut bruneae. Setae 6—3, cum nuce saepe aequilongae, retrorsim scabrae. Stylus 3-fidus. Nux trigona, obovoidea apice acuminata, levis, pallida vel brunescens; stylobasis vix incrassata, in nucis apicem sensim transiens.

Chile: Tarapaca (PHILIPPI n. 59), Atacama (PHILIPPI n. 42).

Distrib. In Orbe Vetere, in regionibus Palaearcticis et Temperatis. — In Orbe Novo, in America Boreali Temperata, et in Rocky Mt.; in Argentina.

Species omnino aphylla; forsán in *Elleocharide* potius ordinanda; ab *Elleocharide* propter stylobasin a nuce non distinctam neque tuberculiformem diversa.

2. *S. caespitosus* Linn.! Sp. Pl. p. 71 et herb. propr.; Kunth Enum. v. 2 p. 459; Boeck. in Linnaea v. 36 (1869—70) p. 488 (syn. pusillo, oligantho exclusis); Desv.! in C. Gay Chile v. 6 p. 180.

Elleocharis caespitosa Link. Hort. Berol. v. 4 p. 283; Hook. Fl. Bor. Amer. v. 2 p. 229.

Rhizoma breve, descendens, apice divisum. Culmi 1—3 dm longi, monostachyi, basi a pluribus squamis semi-vaginosi imbricatis saepe intacti; vaginae summae folium 5—15 mm longum, viride, setaceum. Spicula 4—8 mm longa, ovoidea, 3—7-flora, breviter bracteata, e luteo brunescens. Setae 6—4, nucem superantes, tenues, leves aut in parte superiore minute papillosae. Stylus 3-fidus. Nux obovoidea, apice acuta, levis e stramineo brunescens.

Chile (C. GAY n. 190, in Mus. Paris).

Distrib. In Zona boreali-temperata vulgaris. In Jamaica, fide BOECKELER.

3. *S. cernuus* Vahl Enum. v. 2 (1806) p. 245; Britton in Trans. New York Acad. v. 11 (1892) p. 76.

S. Savii Sebast. et Mauri Prod. Fl. Rom. (1818) p. 22.

S. setaceus Linn.! herb. propr. et Mant. p. 321, nec Sp. Pl. p. 73; Boeck. in Linnaea v. 36 (1869—70) p. 502 Var. β (et α pro parte) nec γ ; F. Philippi Cat. Pl. Chil. p. 312.

S. pygmaeus Poir. Encycl. Suppl. v. 5 p. 100 (nec *S. pigmaeus* Poir. in Lam. Encycl. v. 6 p. 755).

S. brevis d'Urville in Mem. Soc. Linn. Paris v. 4 (1825) p. 600; Gaud. in Freycinet Voy (1825) p. 131; Griseb. Symb. Fl. Argent. p. 313.

S. minimus Hook. et Arn. Bot. Beechey Voy. p. 49, non Vahl.

S. Hookeri Kunth Enum. v. 2 p. 173; Desv. in C. Gay Chile v. 6 p. 183; F. Philippi Cat. Pl. Chil. p. 311.

S. leptaleus Koch in Syll. Soc. Bot. Ratisb. v. 4 (1824) p. 8.

S. riparius Poir. Encyc. Suppl. v. 5 p. 103; S. Watson Bot. Californ. v. 2 p. 217 (syn. excl.), non Presl.

Scirpus modestus F. Philippi! Cat. Pl. Chil. p. 311.

S. perpusillus F. Philippi! Cat. Pl. Chil. p. 311, non Boeck.

S. microstachys Philippi! in Anal. Univ. Chil. v. 93 (1896) p. 478.

S. terminalis Philippi! in Anal. Univ. Chil. v. 93 (1896) p. 479.

S. chloroticus Philippi! in Anal. Univ. Chil. v. 93 (1896) p. 480.

Isolepis cernua Roem. et Sch. Syst. v. 2 p. 106.

I. Saviana Schultes in Roem. et Sch. Syst. v. 2 Mant. p. 63; Kunth Enum. v. 2 p. 193; F. Philippi Cat. Pl. Chil. p. 309.

I. pygmaea Kunth Enum. v. 2 p. 194; Hook. f. Fl. Antart. v. 2 p. 364; Desv. in C. Gay Chile v. 6 p. 186; F. Philippi Cat. Pl. Chil. p. 309; Franquet Mission Cap. Horn p. 374.

I. brevis Brongn. in Duperrey Voy. Coquille pars 2 (1829) p. 180.

I. chlorostachya Nees! in Linnaea v. 9 (1834) p. 291, v. 10 (1835—36) p. 149; F. Philippi Cat. Pl. Chil. p. 309.

I. perpusilla Nees in Linnaea v. 9 (1834) p. 291 pro parte; Philippi! ms.; non *Scirpus perpusillus* Boeck.

I. heterophylla Steud.! in Flora v. 25 (1842) p. 603, et Cyp. p. 92; F. Philippi Cat. Pl. Chil. p. 309.

I. pholioides Steud.! Cyp. p. 93; herb. Philippi! pro parte majore.

I. erubescens Steud.! in Flora v. 25 (1842) p. 604.

I. purpurascens Steud.! Cyp. p. 92; F. Philippi Cat. Pl. Chil. p. 309.

I. modesta Philippi! in Linnaea v. 29 (1857—58) p. 79; F. Philippi Cat. Pl. Chil. p. 309.

I. Pumilio Boeck.! in Flora v. 42 (1859) p. 448.

I. chlorotica Philippi! ms.

I. microstachys Philippi! ms.

I. monostachya Philippi! Pfl. Antofagasta (1894) p. 79.

Cyperus Pumilio Steud.! Cyp. p. 46, in Lechler Berber. Amer. Austr. p. 53.

Glabra. Annua; aut rhizoma 1—4 cm longum, tenne, divisum. Culmi 3—18 cm longi, striati, setacei (cf. Var. ?), praeter basin enodosi, apice monocephali. Folia 5 mm—10 cm longa, angustissima, culmo saepissime [multo] breviora. Spiculae in capite 3—4 (in exemplis Chilensibus saepissime 1) sessiles; bractea ima 1—3 cm longa culmum quasi continens, aut a glumis nucigeris vix diversa (i. e. spicula terminalis). Spiculae

1—10 mm longae, ovoideae aut oblongae, multiflorae aut pauciflorae, non raro proliferae, interdum elongatae usque ad 2 cm longae plus minus steriles. Glumae multispirae, ovatae, castaneae in dorso coloratae aut magis elutae aut albae. Setae 0. Stamina 3—4. Stylus 3-fidus. Nux obovoidea, trigona, vix apiculata, levis (obscurae reticulata, verrucosa aut in verbis Cyperologorum elevato-punctulata) nec longitudinaliter costata, pallida aut fuscescens; celluli extimi subquadrati.

Chile: ubique vulgaris. Atacama (MORONG n. 1260), Cordillera de Tarapaca (PHILIPPI n. 65, monostachya), Copiapo (PHILIPPI), Punta de los Vilos (MACHADA n. 83), San Juan (PHILIPPI n. 118), Cartagena (PHILIPPI n. 98), Valparaíso (BRYDGES, MATHEWS n. 298, PHILIPPI n. 112), Edmonstone (CUMING n. 547), Ovalle (PHILIPPI n. 101), Quillota (GERMAIN, QUINTEROS, ALBERT n. 66), Cordillera Chillan (PHILIPPI n. 60), Cordillera Coquimbo (PHILIPPI n. 58), Corral (PHILIPPI [pygmaea]), Catapulco (PHILIPPI n. 57), Rancagua (PHILIPPI), Gesenteros (ALBERT n. 113), Constitucion (PHILIPPI n. 27, 103), La Cueva (ROEHMER n. 64), Arica (LECHLER n. 700, 722), Aconcagua Fluminis Ostia (E. MOORE n. 70), Valdivia (PHILIPPI n. 5, 121, LECHLER n. 566 [heterophylla]), Patagoniae ora occident. (COPPINGER), Chiloe (PHILIPPI n. 99), Fuegia (WILKES).

Distrib. Per Orbem Terrarum. praeter Indo-China, sparsa, in temperatis communis.

Species in Anglia indigena etiamque magnopere culta, praeter colorem et magnitudinem parum variabilis.

Var. β . *dura* C. B. Clarke ms. hbb. pluribus; culmis duriusculis; spicula dura, saepissime unica, saepe lucide castanea aut brunea.

Scirpus Aucklandicus Boeck. in litteris; cf. Hemsley Voy. Challenger v. 2 p. 158.

S. aegialites Philippi in Anal. Univ. Chil. v. 93 (1896) p. 477.

S. nanus F. Philippi Cat. Pl. Chil. p. 311.

S. caespitosus Philippi ms in hb. propr. n. 27.

Isolepis Aucklandica Hook. f. Handb. New Zeal. Fl. p. 302 in nota (i. e. exempla Americana).

I. nana Philippi! in Linnaea v. 29 (1857—58) p. 79.

I. erubescens Presl ms.

Chile: Ancud (PHILIPPI n. 61), Corral (PHILIPPI n. 73), Concepcion (PHILIPPI n. 96), Chiloe (REED), Fuegia et Ins. Falkland (J. D. HOOKER).

Distrib. In Andes usque ad Rocky Mts., sparsa. In Tristan da Cunha.

Planta a *S. Aucklandico* Hook. f., typico (i. e. sp. Neo-Zeelandica) vix distinguenda.

4. *S. Atacamensis* Boeck. in Linnaea v. 36 (1869—70) p. 482; Griseb. Pl. Lorentz p. 219 et Symb. Argent. p. 313; F. Philippi Cat. Pl. Chil. p. 311; Philippi in Anal. Univ. Chil. v. 93 (1896) p. 476.

Isolepis Atacamensis Philippi Wüste Atacama (Fl. in Append.) p. 53.

Rhizoma breve, erectum, apice divisum. Culmus 4 cm longus, crassiusculus, apice 4- (vel 2-)spiculiger. Folia plura, suberecta, teretia, linearia, crassiuscula. Spicula 6—8 mm longa, ellipsoidea, straminea; bracteeae (glumae imae vacuae) glumis nucigeris similes. Glumae c. 10, ovato-ellipticae obtusae, 5—6 mm longae, non carinatae. Setae 0. Stylus mediocris, linearis, ruber, deciduus; rami 3, longi, tenues. Nux majuscula, late obovoidea, a dorso multum compressa (fere biconvexa), apice admodum obtusa, levis, pallide luteo-brunea.

Chile: Atacama (Philippi n. 1000 in herb. Berol., n. 29, 62 herb. propr.).

Distrib. Catamarca, fide Grisebach.

5. *S. inundatus* Poir. Encycl. Suppl. v. 5 (1817) p. 103; Benth.! Fl. Austral. v. 7 p. 329, pro magna parte.

S. nigricans Poir. Encycl. Suppl. v. 5 p. 104; Boeck.! in Linnaea v. 36 (1869—70) p. 506; F. Philippi Cat. Pl. Chil. p. 314; Philippi in Anal. Univ. Chil. v. 93 (1896) p. 479.

S. Angachillensis Boeck.! in Linnaea v. 36 (1869—70) p. 496; F. Philippi Cat. Pl. Chil. p. 310.

S. Bridgesii Boeck.! in Linnaea v. 36 (1869—70) p. 508; F. Philippi Cat. Pl. Chil. p. 311.

S. Gaudichaudii Boeck.! in Linnaea v. 36 (1869—70) p. 511; F. Philippi Cat. Pl. Chil. p. 311.

S. varians Boeck.! in Linnaea v. 36 (1869—70) p. 698; F. Philippi Cat. Pl. Chil. p. 312.

S. albescens F. Philippi Cat. Pl. Chil. p. 310.

S. phaeocarpus F. Philippi Cat. Pl. Chil. p. 312.

S. didymostachyus Philippi! in Anal. Univ. Chil. v. 93 (1896) p. 475.

S. trichocaulos Philippi! in Anal. Univ. Chil. v. 93 (1896) p. 478.

S. Constitutionis Philippi in Anal. Univ. Chile v. 93 (1896) p. 483, e descript.

Isolepis inundata R. Br.! Prodr. p. 222; Kunth Enum. v. 2 p. 217.

I. nigricans H.B.K. Nov. Gen. et Sp. v. 4 p. 220; Kunth Enum. v. 2 p. 193; Desv.! in C. Gay Chile v. 6 p. 187 t. 70 fig. 3.

I. Gaudichaudiana Kunth! Enum. v. 2 p. 201.

I. Angachilensis Stend. in Lechl. Berber. Amer. Austral. p. 53; Boeck. in Flora v. 42 (1839) p. 448.

I. Angachilensis Stend.! Cyp. p. 94.

I. Valdiviae Stend.! in Lechl. Berber. Amer. Austr. p. 53, et Cyp. p. 94.

I. Conceptionis Stend. p. 94.

I. varians Stend.! in Lechl. Berber. Amer. Austr. p. 53, et Cyp. p. 94.

I. Urvillei Steud. Cyp. p. 94.

I. albescens Desv.! in C. Gay Chile v. 6 p. 188 t. 70 fig. 2.

I. vivipara Schinder ms.; Desv. in C. Gay Chile v. 6 p. 189.

I. ramulosa Steud.! in Lechler Berber. Amer. Austr. p. 50.

I. phaeocarpa Philippi in Anal. Univ. Chil. 1865 pars 2 p. 321.

I. Bridgesii Palla! in Engl. Bot. Jahrb. v. 10 (1888) p. 300.

I. psilocarpa Kunze! ms.

I. trichocaulis Philippi! ms.

I. tristachya Philippi! ms. partim.

Cyperus Urvilleanus Steud.! Cyp. p. 16; cf. Boeck. in Flora v. 42 (1859) p. 448.

Robustior. Spiculae in capite plures, saepe 3—12, rarius unica, pallide aut fusce stramineae, non aut modice castaneo-maculatae. Nux in plantis minoribus 3—6-stachyis saepe apiculata, in plantis majoribus apice obtuse conica; quam in *S. cernui* nuce angustior; ceteroquin ut *S. cernuus* Vahl.

Chile (C. GAY), Valdivia (BRYDGES n. 839, 840, LECHLER n. 453 [Valdiviana]), Arica (LECHLER n. 718 [varians]), Lota (J. BALL.), Ercilla (O. KUNTZE n. 34 bis), Valdivia (PHILIPPI n. 122, n. 67 [trichocaulis], LECHLER n. 1386 [ramulosa]), San Juan (PHILIPPI n. 69), Cordillera Pelada (PHILIPPI n. 127), Constitucion (PHILIPPI).

Distrib. In Argentina, Andes, New Zealand, Australia (copiosa), usque ad Borneo.

In exemplis minoribus, spiculae fere semper pallidae, nux minute apicata; in exemplis typicis *S. nigricantis* in herb. J. Gay spiculae aliae sunt pallidae, aliae plus minus castaneo-maculatae. In exemplis majusculis *I. Valdiviae* Steud., spiculae majusculae pallidae nux apice obtuse conica. In exemplis typicis R. Brown, spiculae sunt majusculae pallidae, nuces parvae apiculatae. Inter exempla Australiensia, exempla *trichocaula* (= *S. trichocaulis* Philippi), exempla foliis longis paullo latioribus, videnda sunt. Varietates stabilire nequivi.

6. *S. nodosus* Rottb. Descr. et Sc. (1773) p. 52 t. 58 fig. 3; Boeck. in Linnaea v. 36 (1869—70) p. 718; Benth. Fl. Austral. v. 7 p. 331; Hemsl. Bot. Challenger Voy. pars 2 p. 87, 266; pars 3 p. 58; F. Philippi Cat. Pl. Chil. p. 312; Johow Fl. Juan Fernandez p. 142.

Isolepis nodosa R. Br. Prod. p. 221; Kunth Enum. v. 2 p. 199; Desv. in C. Gay Chile v. 6 p. 185.

Rhizoma ligneum, horizontale, 5—8 mm in diam. Culmi 4—10 dm longi, teretes, lenti, aphylli; vagina summa in altero latere oblique lanceolato-producta, nec viridis. Caput 10—16 mm in diam. globosum, densum, polystachyum, brunescens; bractea ima 2—10 cm longa, culmum quasi continuens. Spiculae 3—5 mm longae, ovoideae. Setae 0. Stylus 3-fidus. Nux obovoidea trigona, levis, brunescens.

Chile: Valparaiso (BRYDGES), Corral (PHILIPPI n. 715), Concepcion (D'URVILLE), Arauco (PHILIPPI n. 95), Lebu (PHILIPPI n. 74), Juan Fernandez (MOSELEY), Masa Fuera (CUMING n. 1356).

Distrib. Species per Zonam Australem temperatam (Africa, Oceania, America) vulgata.

7. *S. perpusillus* Boeck.! in Linnaea v. 36 (1869—70) p. 496; F. Philippi Cat. Pl. Chil. p. 312.

Isolepis perpusilla Philippi in Anal. Univ. Chil. (1873) p. 555.

Cyperus Ranko Steud.! Cyp. p. 315, in Lechl. Berber. Amer. p. 53 (Ranco).

Rhizoma breve, descendens, tenuius. Culmi 3—5 cm longi, caespitosi, validuli, enodosi, monocephali. Folia plura, omnia basalia, culmos superantia, linearia. Spiculae 2—4, pallidae, 3—5 mm longae, 6—12-florae: bracteae 4—2 cm longae. Glumae late ellipticae, obtusae. Setae 0. Stylus 2-fidus. Nux ellipsoidea, plano-convexa, levis, brunescens.

Chile: Cordillera de Ranco (LECHLER n. 786).

8. *S. Philippii*.

S. nigricans (forma *flaccida*) Boeck. in Linnaea v. 36 (1869—70) p. 453.

Isolepis tristachya Philippi! in Linnaea v. 30 (1859—60) p. 203.

Culmi 10—25 cm longi, flaccidi, enodosi, monocephali. Folia 5—10 cm longa, tenuissima. Spiculae 3—4, fasciculatae; bractea ima 4—3 cm longa, culnum quasi continuens. Spiculae 4 mm longae, c. 12-florae, atropurpureae. Glumae ovatae, vix acutae. Setae 0. Stylus 2-fidus. Nux obovoidea, plano-convexa, apice acutata, levis, pallida.

Chile: Puerto Montt (PHILIPPI).

9. *S. Hieronymi* Boeck.! Cyp. Novae Heft 4 (1888) p. 18.

S. semisubterraneus herb. Philippi n. 28.

Carex guimardioides Desv.! in C. Gay Chile v. 6 p. 202 pro majore parte, t. 73 fig. 2 (sp. 2 nec sp. 1).

Embristylus guimardioides Steudel! ms. (in exemplo cum *Oreobolo mixto*).

Rhizoma tenuius, apice divisum. Culmi 3—10 cm longi, mediocres, subteretes monocephali. Folia 5—25 mm longa, linearia, minime disticha. Caput terminale, 3—4- (saepius 4-)stachyum, 7 mm longum, stramineum; bracteae imae vacuae glumis nucigeris similes, paulo majores. Glumae 5—6 mm longae, elliptico-oblongae, non carinatae. Setae 3, cum $\frac{2}{3}$ parte nucis subaequilongae, tennes, minute papilloso-dentatae, luteae brunescens. Stylus linearis, deciduus; rami 3 longi. Nux parvula, oblongo-ellipsoidea (anguste obovoidea), trigona, apice perobtusata, levis lucida, brunescens.

Chile: Cordillera Coquimbo (PHILIPPI n. 28), Coquimbo, alt. 3130 m [C. GAY]. Casa Canella Pera (WILKES).

Distrib. Peru (LECHLER n. 4977 partim), Argentina: Cordillera de la Rioja (HIERONYMUS et NIEDERLEIN n. 232).

Species *S. Atacamensi* Boeck., similima; ob setas ac praesertim ob nucem angustam trigonam diversa. — *Carex guimardioidis* exemplum, a C. Gay communicatum,

est *Scirpus Hieronymi* cum foliis *Oreoboli* intermixtum. LECHLERI n. 1977 exemplum in herb. Kew est *Scirpus Hieronymi* cum *S. semisubterraneo* Boeck. mixtum. *Carex gaimardioidis* Desv., descriptio est confusa.

10. *S. deserticola* Philippi Wüste Atacama (1860) Fl. Append. p. 53; Boeck. in Linnaea v. 36 (1869—70) p. 494; F. Philippi Cat. Pl. Chil. p. 341; Philippi in Anal. Univ. Chil. v. 93 (1896) p. 482.

S. semi-subterraneus Boeck. in Linnaea v. 36 (1869—70) p. 495.

S. thermalis Spruce ms.; Benth. et Hook. f. Gen. Pl. v. 3 p. 1051.

Carex gaimardioides Desv. in C. Gay Chile v. 6 p. 202, pro minore parte, et t. 73 fig. 2 (sp. 1 solum).

Rhizome tenue, repens, usque ad 1 dm longum. Culmi 1—4 cm longi, apice monocephali. Folia plurima, 1—3 cm longa, linearia, aut lineari-oblonga subteretia. Caput 6 mm longum, 3—4-stachyum, ovoideum, bruneum; bracteae glumis nucigeris vix longiores. Glumae 4 mm longae, ovatae, obtusae, in carina viridescentes. Setae 6, nucem superantes retrorsim scabrae, ferrugineae. Stylus linearis; rami 3, lineares. Nux parva, ellipsoidea, acute trigona, apice acuminata levis nigro-brunea.

Chile: Atacama (PHILIPPI n. 1005, hb. Berol.).

Distrib. Peru, Bolivia, Ecuador.

11. *S. acaulis* Philippi in Linnaea v. 29 (1857—58) p. 78; Boeck. in Linnaea v. 36 (1869—70) p. 494; F. Philippi Cat. Pl. Chil. p. 340.

S. sessiliflorus Philippi in Anal. Univ. Chil. v. 93 (1896) p. 479.

S. nubigenus Philippi in Anal. Univ. Chil. (1873) p. 554; F. Philippi Cat. Pl. Chil. p. 312?

Isolepis acaulis Philippi ms. fide Boeckeler.

Rhizoma repens. Culmus vix ullus, 0—1 cm longus. Folia 3 cm longa, anguste lanceolato-linearia. Caput e 6—1 spiculis fuscis pluri-nucigeris constans. Spiculae 5—8 mm longae, ellipsoideo-lanceolatae, glumis arcte imbricatis densae. Glumae nucigerae 5—6 mm longae, elliptico-lanceolatae. Setae 6, tenues, albae, scabridae, nucem superantes. Stylus perlongus, linearis; rami 3, lineares. Nux parvula, cum $\frac{1}{3}$ parte glumae subaequilonga, inaequaliter, trigona, obovoidea, basi stipitata, apice acuminata, levis, pallida.

Chile: Lacus Malvarco, in Andibus (GERMAIN), Cordillera Linares (PHILIPPI n. 998), Caboceira del Vallilargo (Santiago) (PHILIPPI n. 30).

12. *S. macrolepis* Philippi in Anal. Univ. Chil. v. 93 (1896) p. 481.

Rhizoma tenue. Culmi 5—6 cm longi, robustiores, monocephali. Folia 4 cm longa, anguste lanceolato-linearia, nec teretia. Caput 15 mm in diam., subglobosum, 6—3-stachyum, cinnamomeum; bracteae glumis nucigeris fere similes. Spiculae 2—6-nucigerae. Glumae 7—8 mm longae, anguste oblongae. Setae 6, retrorsim hispidae, ferrugineae, quarum 3 saepe longiores, nucem superantes. Stylus linearis, rami 3, lineares. Nux parva,

ellipsoidea, acute trigona, apice acuminata, levis, nigro-brunea, cum $\frac{1}{4}$ parte glumae vix aequilonga.

Chile: Vegas del Toro (F. PHILIPPI).

Nux, setae, stylus, fere ut in *S. deserticola*, a qua differt foliis basi latioribus, glumis nucigeris longissimis. Paulo differt a *S. acauli* ob culmum 5—6 cm longum, spiculas laxiglumas pauci-nucigeras. *S. nubigenus* Philippi, e descript. cum hac vel illa specie conjungi potest.

13. *S. Nevadensis* S. Watson! Bot. King Exped. (1874) p. 360, et Bot. Californ. v. 2 p. 247; Britton in Trans. New York Acad. v. 44 (1892) p. 78.

S. remireoides Griseb.! Pl. Lorentz. (1874) p. 218.

S. Reichei Philippi in Anal. Univ. Chile v. 93 (1896) p. 480 e descript.

Isolepis oreophila Philippi! Pfl. Antofagasta 1894 p. 79.

Rhizoma horizontale, crassum. Culmi 15—40 cm longi, robustiores, teretes, monocephali. Folia culmo parum breviora, convoluta-teretia, rigida. Spiculae 4—8, capitatae; bractea ima suberecta, caput superans. Spicula 8—14 mm longa, ellipsoidea-oblonga. Glumae nucigerae plures, aetius imbricatae, castaneae in dorso luteae, obtusae, in margine minute ciliolatae, subintegrae. Setae cum $\frac{1}{2}$ parte nucis vix aequilongae, irregulares, aut subobsoletae, sursum scabrae. Stylus 2-fidus. Nux plano-convexa, obovoidea, apice triangularis, levis, olivaceo-brunea.

Chile: Atacama (PHILIPPI n. 63), Breas (PHILIPPI n. 128).

Distrib. Catamarca, California, Nevada, Oregon, Assiniboia.

14. *S. Americanus* Pers. Syn. v. 1 (1805) p. 68; Britton in Trans. New York Acad. v. 44 (1892) p. 78.

S. pungens Vahl Enum. v. 2 (1806) p. 225; Kunth Enum. v. 2 p. 162; Boeck. in Linnaea v. 36 (1869—70) p. 708; F. Philippi Cat. Pl. Chil. p. 312.

S. Chilensis Nees! in Linnaea v. 9 (1834) p. 293, et in Nova Acta Nat. Cur. v. 19 Suppl. 4 (1843) p. 93; Kunth Enum. v. 2 p. 162; Desv. in C. Gay Chile v. 6 p. 182; Nees et Meyen ms. e Nees.

S. monophyllus Presl Rel. Haenk. v. 1 p. 193; Kunth Enum. v. 2 p. 162.

S. badius Presl Rel. Haenk. v. 1 p. 193; Kunth Enum. v. 2 p. 168; Desv. in C. Gay Chile v. 6 p. 182.

S. longifolius Hook. et Arn. Beechey Voy p. 49; Kunth Enum. v. 2 p. 174; Steud. in Flora v. 25 (1842) p. 602; F. Phil. Cat. Pl. Chil. p. 314.

S. melanorrhizus Boeck.! in Engl. Bot. Jahrb. v. 5 (1884) p. 504.

Dichromena atosanguinea Desv. in C. Gay Chile v. 6 p. 190 t. 74 fig. 5 et a—f (quoad stylibasin non recte).

Malacochaete oligostachys Philippi in Linnaea v. 29 (1857—58) p. 78; F. Philippi Cat. Pl. Chil. p. 310.

Schoenoplectus pungens Palla in Engl. Bot. Jahrb. v. 10 (1888) p. 299.

Rhizoma repens (usque ad 2—3 dm longum), robustius. Culmi 2—10 dm longi, trigoni. Folia saepius brevia, non raro 0, in forma longifolia plura 2—4 dm longa, spiculae 1—5 (interdum 6—12) capitatae, bruneae, castaneo-rubrae aut fuscae; bractee 2—3, ima saepe 2—7 cm longa, culmum quasi continuens. Spiculae 10—20 mm longae, ellipsoideae aut oblongae, densiflorae. Glumae ovatae, apice scarioso-marginatae, emarginatae aut subbilobae, nervo medio subexcurrente, in margine plus minus pilosulae. Setae 2—6, cum nuce saepe aequilongae, retrorsim hispidae, irregulares interdum fere obsoletae. Stylus 2-fidus vel raro 3-fidus. Nux obovoidea, plano-convexa, apice obtusa minute apiculata, levis, atro-castanea.

Chile (GILLIES, C. GAY, REED), Atacama (MORONG n. 1261), Cumiñalla (RAHMER n. 24), Colchagua (J. BALL, PHILIPPI n. 124), Arauez (PHILIPPI n. 116), Valparaíso (MACRAE), Bucalema (PHILIPPI n. 22), Valdivia (PHILIPPI, BRIDGES n. 846), Puerto Moutt (PHILIPPI n. 17), Chacarilla (PHILIPPI n. 26), Chiloe (PHILIPPI n. 18).

Distrib. In America fere omni, Europa, Australia.

15. *S. asper* Presl! Rel. Haenk. v. 1 (1828) p. 194; Kunth Enum. v. 2 p. 169; Desv. in C. Gay Chile v. 6 p. 178; Griseb. Symb. Fl. Argent. p. 313; Boeck. in Linnaea v. 36 (1869—70) p. 492; F. Philippi Cat. Pl. Chile p. 310; Philippi Fl. Atacama p. 53.

S. glaucus Nees! in Linnaea v. 9 (1834) p. 293, in Nova Acta Nat. Cur. v. 19 Suppl. 1 (1843) p. 93; Kunth Enum. v. 2 p. 169; Desv. in C. Gay Chile v. 6 p. 88; Nees et Meyen ms. e Nees.

S. brachycaulos Philippi in Anal. Univ. Chil. v. 93 (1896) p. 482.

S. scaberrimus Philippi! (ms.?) in herb. prop.

Chaetospora? laeta Kunze! ms.

Ch. laxa Kunze ms. fide J. Gay.

Rhizoma descendens, ligneum. Culmi 3—8 dm longus, apice trigonus asper vel raro levis. Folia 3—3 dm longa, 5—7 mm lata, in marginibus saepe perscabra. Corymbus in umbellam fere depressus, compositus, 4—20 cm in diam., 20—140-stachyus; bractea ima foliiformis. Spiculae fasciculatae vel e supremis quaedam pedicellatae, ellipsoideae aut cylindricae, 4—8 mm longae, densae. Glumae ovatae, integrae, fere glabrae, ferrugineae aut castaneo-bruneae, apice triangulares, carina viridi vel rubra in mucronem plus minus excurrente. Setae 6, retrorsim hispidae, cum nuce saepe aequilongae. Stylus 3-fidus. Nux parva trigona, ovoidea aut subobovoidea, levis, pallida, brunescens.

Chile (POEPPIG n. 23, 359, BRIDGES, REED, WAWRA n. 2986), Valparaíso (MACRAE, CUNING n. 77, MEYEN n. 121, MATHEWS n. 245, PHILIPPI n. 111), Guillota (BERTERO n. 1300, GERMAIN, PHILIPPI n. 1006), Santiago (C. GAY n. 228), Copiapo (C. GAY n. 229), Carresal (PHILIPPI), Illapel (PHI-

LIPPI n. 34), La Serena (PHILIPPI n. 35), Quinteros (PHILIPPI n. 21), Aculeo (GERMAIN).

Distrib. In Argentina communis; in Bolivia.

Species quoad spicularum formam variabilis. In *S. aspero* typico, forma in Chile rara, spiculae ovoideae, glumae subobtusae vix mucronulatae videntur. In forma *>glaucos* (sp.) Nees, spiculae multo longiores, glumae (saepe longius) mucronatae. Hujus quasi forma extrema sequitur.

Var. **polystachya**; spiculis 8—40 mm longis, subcylindricis; glumis oblongo-lanceolatis, nervo lato medio lanceolatum excurrente.

Scirpus polystachyus Philippi! (ms.?) herb. propr.

Chile: Atacama (PHILIPPI n. 34).

16. **S. riparius** Presl Rel. Haenk. v. 4 (1828) p. 193; Griseb. Symb. Fl. Argent. p. 312; Boeck. in Linnaea v. 36 (1869—70) p. 717; non Spreng. (nec Benth., Hemsl. etc.).

S. Tatora Kunth Enum. v. 2 p. 166.

Malacochaete riparia Nees in Linnaea v. 9 (1834) p. 292, in Nova Acta Nat. Cur. v. 49 Suppl. 1 (1843) p. 90; Desv. in C. Gay Chile v. 6 p. 176 t. 71 fig. 4 (et *a—e*); F. Philippi Cat. Pl. Chil. p. 340; Nees et Meyen ms. e Nees.

M. assimilis Cesati in Atti Soc. Sc. Nap. v. 5 (1874) p. 17.

Schoenoplectus riparius Palla in Engl. Bot. Jahrb. v. 10 (1888) p. 299.

S. Tatora Palla in Engl. Bot. Jahrb. v. 10 (1888) p. 299.

Culmus saepe metralis et ultra, robustus, apice levis trigonus. Folia subnulla; vagina summa in altero latere 4—4 cm lanceolatim producta, interdum viridescens. Umbella composita, 20—80-stachya, 4—20 cm in diam.; bractae 3—2, ima 4—5 cm longa, suberecta, apice triquetra. Spiculae usque ad 16 mm longae, 5 mm latae, castaneo-rufescentes aut fusce bruncae. Glumae ovatae, subintegrae, glabrae, longius mucronatae. Setae 2 aut 4 (rarius 6—7), plumosae i. e. a pilis multicellulis conspicue ornatae, atosanguineae. Stylus 2-fidus. Nux parva plano-convexa, ovoidea aut subobovoides, levis, pallida nigrescens.

Chile (POEPPIG n. 25, CHAMISO n. 132, CUMING n. 842), Valdivia (PEARCE n. 214, d'URVILLE, PHILIPPI n. 6, 1230), Melipilla, alt. 600 m (MEYEN), Rencagua (hb. C. Gay n. 613), Patagonia (WILKES).

Distrib. In America Australi omni; usque ad Californiam, Texas New Orleans sparsa. Ins. Sandwich. In Orbe Vetere ignota; sed *Scirpus littoralis* Schrader, in Orbe Vetere late vulgata, a *Scirpo ripario* Presl, parum differt.

Var. **tereticulmis**; culmo obscurius trigono; umbella densius contracta; glumis saepe atosanguineis.

S. tereticulmis Steud. Cyp. p. 85 (*tereticaulis* Steud. ms.).

S. pseudotriquetra Steud. in Lechl. Berber. Amer. Austral. p. 50, et Cyp. p. 86.

Malacochaete sanguinolenta (sp.) Nees et Meyen ms.

Chile (BERTERO n. 613), Arica (LECHLER n. 453), Valdivia (LECHLER n. 1383, PHILIPPI n. 539); Ins. Chiloe (KING, ANDERSEN, REED); Patagonia, Port Famine (CUNNINGHAM).

Distrib. Argentina, Peru.

Var. mihi trivialis, in *S. riparium* typicum sensim transiens.

17. *S. melanocaulos* Philippi! in Anal. Univ. Chil. v. 93 (1896) p. 476.

S. nitens Boeck.! in Linnaea v. 36 (1869—70) p. 696 partim (i. e. stylis 2-fidis); F. Philippi Cat. Pl. Chil. p. 312.

S. spadiceus Philippi! in Linnaea v. 29 p. 80, non Boeck.

Isolepis Krausei Philippi! in Linnaea v. 30 p. 203.

Glabra. Rhizoma repens, tenue, 5—15 cm longum. Culmi 5—20 cm longi, graciles lenti, enodosi, teretes; vaginae basales nitide castaneae. Folia cum $\frac{3}{4}$ parte culmi saepe aequilonga, setacea, rigida. Corymbi rami 1—2, vix ad 1 cm longi, aut saepius caput 1 oligostachyum; bractea ima 1—6 cm longa, foliiformis, rigida. Spiculae 5—6 mm longae, 2—3 mm latae, 1—5-nucigerae, durae, castaneae, vix compressae. Glumae ovatae, muticae, castaneo-rubrae, in margine scariosae glabrae, 2 imae vacuae; rhachilla supra florem imum perfectum non elongatum curvatum (idcirco vix *Schoeni* sp. Benth.). Setae 6—2, irregulares, nucem saepe superantes, scabrae, luteae, ima basi longe luteo-ciliatae. Stamina 3. Stylus linearis, basi in nucis apicem sensim transiens; rami 2, lineares. Nux parva, oblongo-ellipsoidea, plano-convexa, levis, flava, brunescens.

Chile: Valdivia, Corral (LECHLER n. 3090, PHILIPPI n. 641, KRAUSE n. 55, 129, 165), in litore Oceani (BRIDGES n. 837, 851), Valle Hermoso (PHILIPPI n. 82).

Stylus in exemplis numerosis a me visus, semper 2-tidus. Species differt a *Schoeno* ob 1. spiculae rhachillam (supra imum florem perfectum) brevem (neque elongatum supra nucem incurvatum); 2. glumas imas 2 (neque 3) vacuas; 3. stylum 2-fidum (nec 3-fidum). *S. melanocaulos* forsitan quasi *S. nitentis* Boeck., forma 2-stigmatosa Americana habenda est.

Species residuae.

Isolepis heterolepis Steud. in Flora v. 25 (1842) p. 602, et Cyp. p. 93.

Chile (BERTERO n. 607).

Est *Carex Berteroana* Desv.

Scirpus eliehnarius Molina Chile (ed. Angl.) v. 1 (1889) p. 125, 287; Kunth Enum. v. 2 p. 174.

Culmus 4-pedalis, teres, nudus. Bractee 3, xiphoideae. Caput e 4 spicis globosis exstructum.

Chile; fide Molina.

S. Cumingii Boeck. in Linnaea v. 36 (1869—70) p. 491; F. Philippi Cat. Pl. Chil. p. 311.

Chile (BERTERO n. 606, 611, 1297).

Est *Carex setifolia* Kunze.

Isolepis variegata Steud. in Flora v. 25 (1842) p. 603 et Cyp. p. 93. Chile (BERTERO n. 606, 614, 1297).

Est *Carex setifolia* Kunze.

8. *Fuirena*.

Fuirena Rottb. Descr. et Ic. (1773) p. 70 t. 49 fig. 3; Kunth Enum. v. 2 p. 180; Boeck. in Linnaea v. 37 (1871) p. 98; Benth. in Benth. et Hook. f. Gen. Pl. v. 3 p. 4053.

Scirpi sp. Linn. Mant., Lam. etc.

Glumae hermaphroditae numerosas, undique imbricatae, aristellatae, apice pilosulae. Setae hypogynae 3 interiores (petala) saepe explanatae. Stylus 3-fidus, basi in nucem sensim transiens — — Plus minus pilosae. Culmi supra mediam partem (fere semper) nodosi foliigeri. Inflorescentia elongato-paniculata, corymbo summo interdum solitario (inflorescentia pseudo-capitata, vel terminalis).

Species 35, in calidioribus Totius Orbis Terrarium sparsae.

1. **F. umbellata** Rottb. Descr. et Ic. (1773) p. 70 t. 49 i. e. tab. 48 altera fig. 3; Kunth Enum. v. 2 p. 185; Benth. in Hook. Niger Fl. p. 553, Fl. Hongk. p. 395, Fl. Austral. v. 7 p. 337; Desv. in C. Gay Chile v. 6 p. 184; F. Philippi Cat. Pl. Chile p. 307; Boeck. in Linnaea v. 37 (1871) p. 140; C. B. Clarke in Hook. f. Fl. Brit. Ind. v. 6 p. 666.

F. paniculata Linn. f. Suppl. (1784) p. 405.

Rhizoma repens. Culmi 5—45 dm longi, apice pilosi. Corymbi saepius plures in panicula longa dispositi. Setae 3 interiores (petala) cum nuce subaequilongae, obovoideae. Nux ovoidea, triquetra, levis, pallida brunescens.

Chile (C. GAY e DESVEAUX).

Distrib. Per Orhem Terrarum fere totum sparsa et in multis regionibus vulgaris. In Peru (POERRIG n. 3006). Exemplum Chilense non vidi.

9. *Dichromena*.

Dichromena Mich. Fl. Bor. Amer. v. 4 (1803) p. 37; Kunth Enum. v. 2 p. 274 partim i. e. spp. 3—40; Benth. in Benth. et Hook. f. Gen. Pl. v. 3 p. 4047; cf. Theo. Holm in Amer. Journ. Sci. v. 4 (1897) p. 298—305 cum tab.

Rhynchosporae sp. Griseb. Fl. Brit. West Ind. p. 573 (sp. 85—89); Boeck. in Linnaea v. 37 (1873) p. 525.

Glumae undique imbricatae, 3—4 imae vacuae minores; sequuntur 3-plures (raro 2—4) hermaphroditae, nucigerae; glumae summae masculae aut steriles. Styli rami 2, lineares, styli parte indivisa longiores. Styli-basis tuberculiformis in nuce persistens. — Spiculae in 4 capite terminali congestae. Setae hypogynae 0.

Species 14; in America a Carolina usque ad Argentinam sparsae.

Genus forsán (cum Boeckelero in Rynchosporam potius reducendum.

D. ciliata Vahl Enum. v. 2 (1806) p. 240; Kunth Enum. v. 2 p. 276; Britton! in Ann. New York Acad. v. 7 (1892) p. 254; C. B. Clarke in Urban Fl. Ind. Occident. v. 2 p. 101.

D. nervosa Vahl Enum. v. 2 p. 241 partim? forsán omnino non!

D. blephanophora Steud.! Cyp. p. 135.

Rhynchospora nervosa Boeck.! in Kjob. Vidensk. Meddel. (1869—70) p. 143; F. Philippi Cat. Pl. Chile p. 310.

Fere glabra. Rhizoma ligneum. Culmi caespitosi, 1—3 dm longi, tenuiores. Folia 1—3 dm longa, 3—4 mm lata. Caput 1—2 cm in diam., albo-viride; bracteae 4—7, usque ad 5—12 cm longae, foliiformes, basi albicantes sparse ciliatae. Spiculae laxiuscule spicatae, 7 mm longae, c. 3-nucigerae. Nux 1—1½ mm longa, late obovoidea a 12 lineas horizontalibus zonata; rostrum ovatum cum 1½—2/3 parte nucis aequilongum.

Chile: Cordillera (PHILIPPI).

Species in America Australi calidiore, in Mexico, et West Indies, vulgaris.

10. Carpha.

Carpha R. Br. Prodr. (1810) p. 230 pro parte; Boeck. in Linnaea v. 38 (1874) p. 265 pro magna parte; Benth. Fl. Austral. v. 7 p. 381, in Hook. Ic. Pl. t. 1216, in Benth. et Hook. f. Gen. Pl. v. 3 p. 1061; Desv. in C. Gay Chile v. 6 p. 191.

Asterochaete Nees in Linnaea v. 9 (1834) p. 300; Benth. in Benth. et Hook. f. Gen. Pl. v. 3 p. 1062; C. B. Clarke in Dyer Fl. Cap. v. 7 p. 269.

Schoeni sp. Vahl Enum. v. 2 p. 224.

Ptilanthelium Steud. Cyp. p. 167.

Rhynchosporae sp. Spreng. Syst. v. 1 p. 195.

Chaetosporae sp. Hook. f. Fl. Antart. v. 2 p. 361 t. 146, 147; Desv. in C. Gay Chile v. 6 p. 192.

Elynanthi sp. Benth. in Benth. et Hook. f. Gen. Pl. v. 3 p. 1064.

Oreograstis K. Schum. in Engler Pflanzenw. Ostaf. C. p. 127.

Glumae subdistichae; 3 imae vacuae; sequuntur 1—3-florigerae quarum ima perfecta nucifera; gluma summa sterilis; rhachilla (supra florem imum perfectum) non elongata curvata. Setae 6, evolutae. Stylus longus, 3-fidus, basi cum nuce continuus, persistens. Nux oblonga aut ellipsoidea, trigona, apice pyramidata. — Folia longa. Panícula oblonga, interdum in caput fere abbreviata; bracteae longae, ima paniculam superans.

Species 12, Australes; i. e. in America australi, in Africa australi (cum insulis Mascarensibus) in Australia vigentes.

Setae longe plumosae 4. *C. alpina*.

Setae antice scabrae.

Spiculae 9 mm longae cinnamomeae 2. *C. Antarctica*.

Spiculae 5—7 mm longae, lucide castaneae 3. *C. paniculata*.

4. *C. alpina* R. Br. Prodr. (1810) p. 230; Kunth. Enum. v. 2 p. 322; Boeck. in Linnæa v. 38 (1874) p. 269; Benth. Fl. Austral. v. 6 p. 381 et in Hook. Ic. Pl. v. 13 p. 14 t. 1216; F. Philippi Cat. Pl. Phil. p. 306.

C. schoenoides Hook. f. Fl. Antart. v. 2 p. 362 t. 148; Desv. in C. Gay, Chile v. 6 p. 192; Franch. in Mission Cap Horn Phanerog. (1889) p. 374; Banks et Solander ms., fide Hook. f.

C. viridis Philippi! ms. (cf. F. Philippi Cat. Pl. Phil. p. 306).

Rhynchospora alpina Spreng. Syst. v. 4 p. 195.

Chaetospora alpina F. Muell. Fragm. Phyt. Austral. v. 9 p. 39.

Viridi-straminea. Rhizoma oblique descendens. Culmi caespitiosi, 1—5 dm longi, mediocres, modo praeter basin nudi modo in media parte 1—2-nodosi foliigeri. Folia 1—2 dm longa, 1—4 mm lata. Panicula oblonga, brevis, modo laxius corymbosa modo in caput unicum fere contracta; spiculae fasciculatae vel interdum fere omnes pedicellatae. Spiculae compressae, 7—9 mm longae, pallidae, 1-nucigerae. Glumae subdistichae, acutae. Setae nucem longe superantes, conspicue plumosae. Stylus 3-fidus. Nux oblongo-ellipsoidea trigona, apice (saltem junior) minute scabra, pyramidalis acuminata, levis, nigrescens.

Chile: Valdivia (PHILIPPI, REED), Cordillera Pelada (PHILIPPI n. 78), Caput Horn (J. D. HOOKER n. 71), Fuegia (J. BANKS, WILKES).

Distrib. Neo-Guinea—Australia. Neo-Zeelandia.

2. *C. Antarctica*.

Chaetospora Antarctica Hook. f. Fl. Antart. v. 2 p. 364 t. 147; Desv. in C. Gay Chile v. 6 p. 193.

Elyanthus Antarcticus Franch. in Mission Cap. Horn. Phanerog. (1889) p. 374 t. 8 fig. B (*Elinanthus*).

Elyanthi sp. Benth. in Benth. et Hook. f. Gen. Pl. v. 3 p. 1064 in Obs.

Pallida. Culmi 6 dm longi, 2 mm in diam., praeter basin nudi. Folia 3 dm longa, 1—4 mm lata. Panicula 6 cm longa, subcomposita, contracta, 12—20-stachya; spiculae pedicellatae; bractea ima usque ad 10—15 cm longa, cum foliis consimilis. Spicula 9 mm longa, straminea aut cinnamomeo-brunescens, 1-nucigera, subcompressa, ei *C. alpinæ* similis. Setae nucem subduplo superantes, antice piloso-scabrae. Stylus 3-fidus. Nux ellipsoidea, trigona, utrinque pyramidata, levis, brunea.

Chile: Canal Messier (hb. Philippi n. 133), Mayne Portus et Eden Portus (R. O. CUNNINGHAM, J. BALL), Orange Portus (WILKES).

3. *C. paniculata* Philippi! in Linnæa v. 29 (1857—58) p. 80; Boeck. in Linnæa v. 38 (1874) p. 268; F. Philippi Cat. Pl. Chil. p. 306.

Chaetospora laxa Hook. f. Fl. Antarel. v. 2 p. 364 t. 146; C. Gay Chile v. 6 p. 194; Boeck. in Linnaea v. 38 (1874) p. 304; F. Philippi Cat. Pl. Chile p. 306.

Ch. rhynchosporoides Steud. in Lechler Berber. Amer. Austral. p. 53, Cyp. p. 162; F. Philippi Cat. Pl. Chile p. 316 (rhynchospermoides).

Ch. Hensloviana Nees ms., fide Boeckeler.

Elynanthi sp. Benth. in Benth. et Hook. f. Gen. Pl. v. 3 p. 1064.

Rhizoma breve, tenue. Culmi caespitosi, 15—50 cm longi, graciles lenti, praeter basin enodosi; vaginae lucide castaneae. Folia 4—4 dm longa, 1—2 mm lata, hemicylindrica. Panicula 5—7 cm longa, 2 cm lata, 20—40-stachya, composita; bractea ima 6—20 cm longa, foliiformis. Spiculae solitariae, lucide atro-castaneae, compressae, 5—7 mm longae, 1—2-nucigerae. Glumae inferiores subdistichae. Setae 6, nucem superantes, dense antice scabrae. Stylus 3-fidus. Nux parva, trigona, ellipsoidea utrinque angustata pyramidalis, apice in stylobasin sensim transiens, usque ad apicem levis, brunea.

Chile: Corral (OCHSENIUS, PHILIPPI n. 666), Valdivia (LECHLER n. 744), Cordillera Ranco (LECHLER n. 3046), Caput Tres Montes (DARWIN), Chiloe (PHILIPPI n. 79).

44. Schoenus.

Schoenus Linn. Gen. Pl. ed. 2 p. 24 Char. emend., et Sp. Pl. ed. 2 p. 64 partim i. e. speciebus plurimis exclusis; Boeck. in Linnaea v. 38 (1874) p. 273; Benth. Fl. Austral. v. 7 p. 352, in Benth. et Hook. f. Gen. Pl. v. 3 p. 1062; C. B. Clarke in Hook. f. Fl. Brit. Ind. v. 6 p. 673, in Dyer Fl. Cap. v. 7 p. 271.

Chaetospora R. Br. Prodr. p. 232.

Carphae sp. quaedam, auctt.

Spiculae pauciflorae. Glumae subdistichae, 3 (vel plures) imae vacuae; rhachilla supra florem imum (perfectum) elongata incurvata. Setae variae. Stamina 3, aut non raro 6—4. Stylus 3-fidus, basi in nucis apicem sensim transiens. — Species 60, quarum 56 in Australia indigenae.

1. **S. Sodalium** Harriot! in Bull. Soc. Bot. France v. 34 (1884) p. 434 nomen); Philippi in Anal. Univ. Chile v. 93 (1896) p. 484.

Carpha Andina Philippi! in Anal. Univ. Chil. (1873) p. 555; F. Philippi Cat. Pl. Chil. p. 306.

Elynanthus Sodalium Franchet in Mission Cap. Horn Phanerog. (1889) p. 375 t. 8 fig. A (*Elinanthus*); Kurtz in Revista Mus. de la Plata v. 7 p. 383.

Glabra. Culmi 2—4 dm longi, caespitosi, robustiores, teretes, striati, enodosi; vaginae basales castaneo-bruneae. Folia usque ad 2 dm longa, 1—2 mm in diam., subteretia, canaliculata, rigida. Panicula 2—4 cm longa, 20-stachya; bractea ima 5—10 cm longa, foliis similis. Spiculae

8—12 mm longae, 2—3-nucigerae; rhachilla (supra florem inum perfectum) elongatum incurvatum; glumae basales vacuae 4. Setae 6, nucem duplo superantes, leves. Stamina 6—4. Stylus 3-fidus. Nux trigona, anguste obovoidea, levis, castanea.

Chile: Vulcan Osorus (PHILIPPI), Bor. Hanquihu (PHILIPPI n. 80), Cordillera del R. Masso, alt. 4500 m (REICHE n. 440). Fuegia, Orange Harbour (WILKES, HARIOT).

12. *Cladium*.

Cladium P. Browne Jamaica (1789) p. 444; Kunth Enum. v. 2 p. 303; Boeck. in Linnaea v. 38 (1874) p. 232; Benth. in Benth. et Hook. f. Gen. Pl. r. 3 p. 4065.

Schoeni sp. Linn. Sp. Pl. v. 4 p. 62.

Machaerina Vahl Enum. v. 2 p. 238; Kunth Enum. v. 2 p. 343; Boeck. in Linnaea v. 38 (1874) p. 254 (sp. *M. resinosa* excl.).

Baumea Gaud. in Freycinet Voy. p. 446 t. 29; Kunth Enum. v. 2 p. 343; Boeck. in Linnaea v. 38 (1874) p. 237.

Vincentia Gaud. in Freycinet Voy. p. 447; Kunth Enum. v. 2 p. 344; Boeck. in Linnaea v. 38 (1874) p. 247.

Terobera Steud. Cyp. p. 464.

Agylla Philippi in Anal. Univ. Chil. 1865 p. 643.

Gahniae sp. F. Muell. Key Victoria Pl. v. 4 p. 453.

Spiculae 4—11-glumae, 4—7-florae. Glumae undique imbricatae, arcte stipulae; 3 (raro 2) imae vacuae; flos imus nuciger; rhachilla supra florem inum non elongata nec curvata. Styli rami 3, longi; basis incrassata cum nuce arcte fusa. — Plantae elatae, saepe metrales. Panícula oblonga, copiosa. Setae 0.

Species 45; quarum 1 Cosmopolitana; caeterae fere omnes insulares in tropicis vel in zona Australi Temperata obviae.

Spiculae fasciculatae, ferrugineae; nux sessilis. 1. *C. Jamaicense*.

Spiculae castaneae lucidae; nux stipitata 2. *C. scirpoides*.

1. *C. Jamaicense* Grantz Instit. v. 4 (1766) p. 362; C. B. Clarke in Urban Fl. Ind. Occid. v. 2 p. 434.

C. Germanicum Schrad. Fl. Germ. v. 4 (1806) p. 75 t. 5 fig. 7.

C. Mariscus R. Br. Prodr. (1840) p. 236; Kunth Enum. v. 2 p. 236; Boeck. in Linnaea v. 38 (1874) p. 232; Hook. f. Fl. Brit. Ind. v. 6 p. 673.

C. effusum Torrey in Ann. Lyceum New York v. 3 (1836) p. 374.

C. Bahiense Nees in Linnaea v. 9 (1834) p. 304.

Schoenus Mariscus Linn.! Sp. Pl. ed. 4 p. 42, ed. 2 p. 62.

Gahnia Mariscus F. Muell. Key Victoria Pl. v. 4 p. 456.

Hypolytrum Kunthianum Boeck.! Cyp. Novae Heft 4 (1888) p. 23.

Glabra, stolonifera. Culmi 4—3-metrales. Folia saepe metralia, 5—10 mm lata, in margine scabra. Panícula 3—10 dm longa; corymbi

plures, distantes, pedunculati. Spiculae fasciculatae, 2—4 mm longae, ferrugineae. Setae 0. Stylus 3-fidus. Nux sessilis, ovoidea, castanea lucida in stylobasin ovoideam fusa.

Chile: Concepcion (herb. Philippi n. 254).

Distrib. Peru, Brasil Australis. Per Orbem Terrarum sparsa. E Chile, praeter exemplum Philippii, non vidi.

2. *C. scirpoideum* Hemsley! Bot. Challenger v. 4 pars 3 (1885) p. 59 t. 60 fig. 1—4; Johow Juan Fernandez p. 143.

Vincentia scirpoidea Boeck. in Linnaea v. 38 (1874) p. 250 partim; F. Philippi Cat. Pl. Chil. p. 313.

Terobera scirpoidea Steud.! Cyp. p. 164.

Agylla ensifolia Philippi! in Anal. Univ. Chil. (1865) p. 643.

Planta 1—2-metralis. Folia metralia, 15 mm lata. Panicula 3—5 dm longa; paniculae partiales longe pedunculatae, spiculis ∞ densae, nutantes. Spiculae 6—7 mm longae, 2-florae, 1-nucigerae, castaneae. Stylus 3-fidus. Nux trigona, longe stipitata; rostrum (stylibasis) longe pyramidale, pilosulum.

Chile: Ins. Juan Fernandez (REED, MOSELEY, PHILIPPI n. 27, 84, BERTERO n. 1509).

43. *Oreobolus*.

Oreobolus R. Br. Prodr. (1810) p. 235; Kunth Enum. v. 2 p. 367; Gaud. in Ann. Sc. Nat. ser. 4 v. 5 (1825) p. 99 t. 2 fig. 1; Hook. f. Fl. Antart. v. 4 p. 87 t. 49; Benth. in Benth. et Hook. f. Gen. Pl. v. 3 p. 1057; Boeck. in Linnaea v. 38 (1874) p. 230 (*Oreobolus*).

Spiculae solitariae, 3—5-glumae, 4-florae; gluma ina bracteiformis, summa florigera. Flos pseudo-terminalis. Setae hypogynae 6, squamiformes, late lanceolatae. — Herbae nanae, glabrae. Folia numerosa, dense stipitata. Flos in rhachillae apice suberectus, revera oblique situs lateralis. Setae in 2 seriebus sitae, nempe 3 sepala, 3 petala. Stylus tenuis; rami 3, longi; basis incrassata, proventu cum nuce fusa. Nux obovoidea, trigona, levis, fere erostris.

Species 4, inter se admodum affines, in America Australi, Ins. Sandwich, Australia, indigenae.

1. *O. obtusangulus* Gaud.! in Ann. Sc. Nat. ser. 4 v. 5 (1825) p. 99 Atlas p. 63 t. 2 fig. 1, in Freycinet Voy. 1826 p. 417; Kunth Enum. v. 2 p. 367; Hook. f. Fl. Antart. v. 2 p. 360; Desv. in C. Gay Chile v. 6 p. 194; Boeck.! in Linnaea v. 38 (1874) p. 234 (*Oreobolus*); Franchet in Mission Cap. Horn Phanerog. (1889) p. 373; F. Philippi Cat. Pl. Chile p. 310.

O. clandestinus Philippi! in Linnaea v. 29 (1857—58) p. 84; F. Philippi Cat. Pl. Chile p. 310.

Gaimardia australis Steudel! ms. in Lechler n. 869, non Gaud.

Folia 2—5 cm longa, obscure disticha, hemi-cylindrica apice acuta rigida. Pedunculi 1—3-stachyi. Spiculae glumae saepius 3. Squamulae hypogynae rubrae. Nux castanea rubra.

Chile: Valdivia (REED, PHILIPPI, LECHLER n. 869), Cordillera de Ranco (LECHLER n. 3084), Sondero, Enero, Alezzal (PHILIPPI n. 94), Palena (PHILIPPI n. 109), Corral (SMITH, PHILIPPI n. 131), Nevade de Chillan et Valle de Caraguas (PHILIPPI n. 93), Volcano de Osorno (PHILIPPI n. 77), Guayteras (GERMAIN n. 76), Patagonia (MOSELY, LOBB), Orange Harbour (WILKES), Ins. Maclovianae (GAUDICHAUD, J. D. HOOKER n. 93), Ins. Hermite (J. D. HOOKER n. 82).

Distrib. In Ecuador, Neo-Grenada, Venezuela (forma *borealis*).

14. *Scleria*.

Scleria Berg. in Kong. Vet. Acad. Stockh. Handl. v. 26 (1765) p. 142 t. 4, 5; Kunth Enum. v. 2 p. 339; Boeck. in Linnaea v. 38 (1874) p. 436; Benth. in Benth. et Hook. f. Gen. Pl. v. 3 p. 1070; Desv. in C. Gay Chile v. 6 p. 195.

Hypoporum Nees in Linnaea v. 9 (1834) p. 304.

Scirpi sp. Linn. Sp. Pl. ed. 1 p. 54.

Schoeni sp. Linn. Sp. Pl. ed. 2 p. 65.

Flores 1-sexuales, axillares. Spiculae modo androgynae flore nucifero 1 basali superioribus masculis, modo unisexuales alterae masculae pluriflorae alterae foemineae 1-florae glumis superioribus vacuis saepe additis. Gluma foeminea aperta neque utriculiformis. Setae hypogynae 0. Nux ossea, in gynophoro (apice saepe dilatato) sustenta.

Species 160, per Orbem Terrarum in regionibus calidis vigentes; in Orbe Novo usque ad Canada et Buenos Ayres in temperatis sparsae.

1. *S. hirtella* Swartz! Prodr. (1788) p. 49, Fl. Ind. Occid. v. 1 p. 93; Kunth Enum. v. 2 p. 353; Boeck! in Linnaea v. 38 (1874) p. 439 α partim nec β nec γ ; F. Philippi Cat. Pl. Chil. p. 342; Maury! in Mem. Soc. Genève v. 24 (1890) p. 147.

S. nutans Kunth! Enum. v. 2 p. 352; Desv. in C. Gay Chile v. 6 p. 196; F. Philippi Cat. Pl. Chil. p. 342.

Hypoporum hirtellum Nees! in Linnaea v. 9 (1834) p. 303.

H. nutans Nees in Mart. Brasil. v. 2 pars 1 p. 170.

Cenchrus hirsutus Spreng.! Neu Entdeck. v. 3 p. 15.

Pilosa. Rhizoma horizontale, lignescens. Culmi 2—6 dm longi, vix 2 mm in diam., foliigeri. Spicularum fasciculi in pseudo-spica sessiles, distantes, nutantes, pleiostachyi, hispidi. Spiculae 4 mm longae; ex his plures 2-sexuales. Nux levis, alba, sub baseos contractione a poris saepe excavata.

Chile (GILLIES n. 261).

Distrib. Africa fere tota, cum Ins. Mascarensibus. In America australi vulgaris, — usque ad Mexico, Florida sparsa.